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WIDE AWAKE



VOLUME S

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THE CHILDREN OF WESTMINSTER ABBEY.

BY ROSE G. KINGSLEY.

I.

THE BUILDING OF THE ABBEY — PRINCESS CATHERINE AND PRINCE HENRY.

TWELVE hundred years ago, in the reign of King Sebert the Saxon, a poor fisherman called Edric was casting his nets one Sunday night into the Thames. He lived on the Isle of Thorns, a dry spot in the marshes, some three miles up the river from the Roman fortress of London. The silvery Thames washed against the island's gravelly shores. It was covered with tangled thickets of thorns. And not so long before, the red deer and elk and fierce wild ox had strayed into its shades from the neighboring forests.*

Upon the island a little church had just been built, which was to be consecrated on the morrow. Suddenly Edric was hailed from the further bank by a venerable man in strange attire. He ferried the stranger across the river, who entered the church and consecrated it with all the usual rites — the dark night being bright with celestial splendor. When the ceremony was over, the stranger revealed to the awestruck fisherman that he was St. Peter, who had come to consecrate his own Church of Westminster. "For yourself," he said, "go out into the river; you will catch a plentiful supply of fish, whereof the greater part shall be salmon. This I have granted on two conditions — first, that you shall never again fish on Sundays; secondly, that you shall pay a tithe of them to the Abbey."†

The next day when bishop and king came with a great train to consecrate the church, Edric told them his story, presented a salmon "from St. Peter in a gentle manner to the bishop," and showed them by the marks of consecration that their pious work was already done.

So runs the legend. And on the site of that

* Dean Stanley says in his "Memorials of Westminster," "The bones of such an ox (*Bos primicerius*) were discovered under the foundations of the Victoria Tower, and red deer, with very fine antlers, below the River Terrace. I derive this from Professor Owen. Bones and antlers of the elk and red deer were also found in 1868 in Broad Sanctuary in making the Metropolitan Railway."

† "Memorials of Westminster," Dean Stanley, p. 21.

little church dedicated to St. Peter, in the thorn-grown island in the marshes, grew up centuries later the glorious Abbey that all English and American boys and girls should love. For that Abbey is the record of the growth of our two great nations. Within its walls we are on common ground. We are "in goodly company;" among those who by their words and deeds and examples have made England and America what they are. America is represented just as much as England "by every monument in the Abbey earlier than the Civil Wars."* And within the last few years England has been proud to enshrine in her Pantheon the memories of two great and good Americans — George Peabody, the philanthropist, and Henry Wadsworth Longfellow, the poet.

Come with me, my American friends, in spirit, and let us wander down to Westminster on some warm June morning.

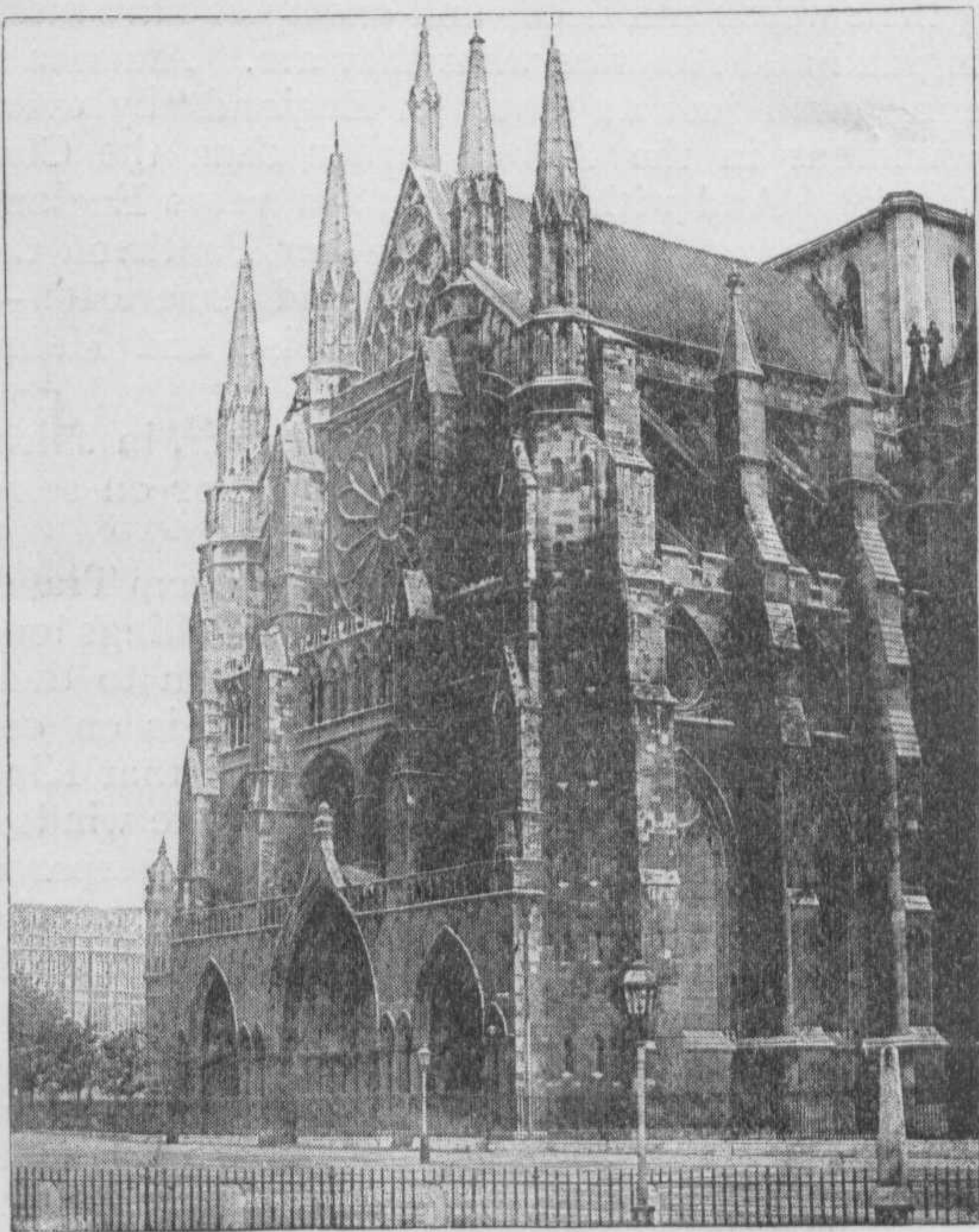
We will go down Parliament street from Trafalgar Square, along the road that English kings took in old days from the Tower of London to their coronations at the Abbey. Whitehall is on our left; and we remember with a shudder that King Charles stepped out of that great middle window and laid his unhappy head on the block prepared outside upon the scaffold. On our right is "the Horse Guards" — the headquarters of the English army, with a couple of gorgeous lifeguardsmen in scarlet and white, and shining cuirasses, sitting like statues on their great black horses. Through the archway we catch a glimpse of the thorns in St. James' Park, all white with blossom; and we wonder whether their remote ancestors were the thorns of Edric's time. Next comes the mass of the Foreign Office and all the government buildings, with footguards in scarlet tunics and huge bearskin caps standing sentry at each door. Parliament street narrows; and at the end of it we see the clock tower of the Houses of Parliament high up in the air, and the still larger square Victoria tower. Then it opens out into a wide space of gardens and roadways, and across the bright flower beds Westmin-

* Lectures delivered in America, Charles Kingsley.

ster Abbey stands before us in all the glory of its gray old age.

What would Edric, the poor fisherman, think if he could see the Thames — silvery no longer — hurrying by the wide granite embankments — past the River Terrace of the Houses of Parliament, and Lambeth Palace, and Doulton's gigantic Lambeth potteries — covered with panting steamboats and heavy barges — swirling brown and turbid under the splendid bridges that span it, down to the Tower of London, and the Pool, and the docks, where the crossing lines of thousands of masts and spars make a brown mist above the shipping from every quarter of the globe? Poor Edric would look in vain for fish in that dirty river; and full four hundred years have passed since "the Reverend Brother John Wratting, Prior of Westminster," saw twenty-four salmon offered as tithe at the High Altar of the Abbey.

What would King Sebert the Saxon think if we took him into the glorious building that has risen



WESTMINSTER ABBEY. — NORTH ENTRANCE.

upon the foundations of his little church in the marshes?

At first sight Westminster Abbey is a little dwarfed by the enormous pile of the Houses of Parliament and their great towers. And St. Margaret's Church, nestling close to it on the north, mars the full view of its length. But when we draw near to it, all other buildings are forgotten. Crossing St. Margaret's churchyard where Raleigh sleeps, we seem to come into the shadow of a

great gray cliff. Arch and buttress and pinnacle and exquisite pointed windows, tier upon tier, are piled up to the parapet more than a hundred feet over our heads. Before us is the north entrance — well named "Solomon's Porch." It is a "beautiful gate of the temple" indeed, with its three deep-shadowed recesses, rich with grouped pillars supporting the pointed arches above the doorways — its lines of windows and arcades above and below the glorious Rose Window, over thirty feet across — and flying buttresses and delicate pinnacles terminating one hundred and seventy feet above the ground — the whole surface wrought with intricate carving, figures of saints and martyrs, likeness of bird and flower, grotesque gargoyles, fanciful traceries and lines and patterns — a stone lace-work of surpassing beauty.

We gaze and gaze, and try to take in the wonder of stone before us. Then, through the bewildering noise of London streets, the rattle of cabs and carriages, the whistle and rumble of underground railways, the ceaseless tramp of hurrying feet on the pavement — "Big Ben" booms out eleven times solemnly and slowly from the Clock Tower. We pass the photograph and guide-book sellers, and push open the doors under the central archway of Solomon's Porch. In an instant the glare and noise and hurry are left behind. We find ourselves in a sweet mellow silence — in a dim tender light, in a vast airy stillness, such as you find at noontide in the depths of a beech forest. But here the boles of the beech-trees are huge pillars of stone — the branches are graceful pointed arches that spring from them, and vaultings and ribs that flash with gold through the blue mist that hangs forever about the roof a hundred feet overhead. Outside the Abbey surge the waves of the great city. We hear a faint murmur of the roar and turmoil of its restless life breaking like distant surf upon the shore. But within these walls we are still and peaceful — and, if we will, we may read in "brass and stony monument" the story not only of England's worthies, but of her religion, her politics, her art, and her literature, for full eight hundred years. Yes! for eight hundred years. For although the present Abbey is but six centuries old, there are still remains to be seen of an earlier building.

Morning service is just over. The choir boys have slipped off their white surplices, and are setting the music books in order. The crowd of sight-seers is beginning to wander about the Abbey. The monotonous voices of the vergers are beginning their explanations of tomb and chapel to the eager strangers. Let us get my good friends Mr. Berrington or Mr. Deer who show the tombs, to come quietly with us in their black gowns. Let us stand within the Sacarium — the wide space inside the altar rails. The splendid reredos glittering with gold, mosaic, and jewels, blazes above the

altar of carved cedar from Lebanon. Against the stalls on the opposite side hangs the famous picture of King Richard the Second. Beside us rise the gray stone canopies of the magnificent tombs of Aymer de Valence and Edmund Crouchback — two of the finest specimens of mediæval art in England. The huge groups of pillars round the choir carry the eye upwards to the arcades of the Triforium, to the delicate tracery of the great windows, to the wondrous misty roof. But it is not overhead

it "to the honor of God and St. Peter and all God's saints," had lavished time and money and pious thought on the grandest building England had yet seen. It had cost one tenth of the property of the kingdom. Its vast size, covering as it did almost the same ground as the present Abbey, its great round arches, its massive pillars, its deep foundations, its windows filled with stained glass, its richly sculptured stones, its roof covered with lead, its five big bells — all these wonders filled the minds



WESTMINSTER ABBEY. — FRONT.

that I would have you look. Beneath your feet is the mosaic pavement that Abbot Ware brought from Rome in 1267, when he journeyed thither to be consecrated Abbot of Westminster by the Pope. Our guide stoops down, touches a secret spring, and lifts up a square block of the pavement. You look into a space some few feet deep. It is almost filled with a mass of rudely chiselled stone — the base and part of the shaft of a huge round pillar.

Look on that pillar with reverence. It has seen strange sights.

Under the arches it once supported, Edward the Confessor was buried. Under them William the Norman was crowned king of England.

It was on the twenty-eighth of December, in the year of grace 1065, that the Collegiate Church of St. Peter was consecrated. For fifteen years Edward the Confessor, the last Saxon king, who built

of men accustomed to the rude wooden rafters and beams of the common Saxon churches with amazement and awe. Then too a mysterious interest had always attached to the site. Besides the old legend of the first consecration by St. Peter, the belief in many mysteries and miracles connected with the Confessor had grown up with the growth of his Abbey Church.

The saintly king, with his pink cheeks, his long white beard, his wavy hair and his delicate hands that healed the diseases of his people by their magical touch, would startle his courtiers with a strange laugh now and again, and then recount some vision which had come to him while they thought he slept. "He had seen the Seven Sleepers of Ephesus suddenly turn from their right sides to their left, and recognized in this omen the sign of war, famine, and pestilence for the coming seventy years, dur-

ing which the sleepers were to lie in their new position."*

He had given a precious ring, "large, royal and beautiful," off his finger to a beggar, who implored alms of him in the name of St. John. The beggar vanished. And the ring was brought back to him from Syria by two English pilgrims, to whom an aged man had confided it, saying that he was St. John the Evangelist, "with the warning that in six months the king should be with him in Paradise."

The six months have ended. The Abbey Church of St. Peter is finished, while hard by, in his palace of Westminster, Edward, the last Saxon king, lies dying. On Wednesday, the Feast of the Holy Innocents, or Childermas, the dying king rouses himself sufficiently to sign the Charter of the foundation: but Edith his queen has to represent him at the consecration. And the first ceremony after the consecration of the glorious minster he loved so well, is the Confessor's own burial. In his royal robes, a crown of gold upon his head, a crucifix of gold on his breast, a golden chain about his neck, and the pilgrim's ring on his hand, he lies before the High Altar with an unearthly smile upon his lips.

A great horror and terror had fallen upon the people of England—and well it might. Well might the Seven Sleepers of Ephesus turn uneasily in their slumber—for within a year William the Norman was standing before that same High Altar—standing on the very gravestone of King Edward, "trembling from head to foot"† for the first time in his life amid clamor and tumult, as Aldred, the Saxon Archbishop of York, put the crown of England on his head, and made him swear to protect his Saxon subjects, while the fierce Norman cavalry were trampling those Saxon subjects under their horses' hoofs outside the Abbey gates.

For one hundred and fifty years England was under foreign kings. And although the Norman Conquerors were crowned in Edward the Saxon's Abbey Church at Westminster, not one of them was laid within its walls. But with the fall of the Norman and Angevin kings, better days dawned for England. The Barons at Runnymede had forced King John, the last English Duke of Normandy and Anjou, to grant them the Great Charter—the glory and pride of all English-speaking people. And at John's death his son Henry the Third came to the throne in 1217 as the first English king of a free English people.

The young king prided himself upon his Anglo-Saxon ancestors. He was descended from King Alfred through "the good Matilda," Henry the First's wife. He called his sons by Anglo-Saxon names. His interests, and those of his descendants, were to be concentrated in the Island which was now their sole kingdom. He therefore deter-

mined to desert the city of Winchester, which his Norman predecessors had made their headquarters, and "to take up his abode in Westminster beside the Confessor's tomb."*

During the Norman occupation an irresistible instinct had been drawing the conquerors towards their English subjects; "and therefore towards the dust of the last Saxon king." In Henry the Second's reign Edward the Confessor had been canonized. Many English anniversaries were celebrated yearly in the Abbey. Good Queen Matilda was buried close to her kinsman Edward and Edith the Swanneck, "the first royal personage so interred since the troubles of the conquest."†

It was to Henry the Third, however, that the thought came of making the Shrine of the Confessor the centre of a burial place for his race. In addition to his love for all things pertaining to his Saxon ancestry, Henry was passionately devoted to all sacred observances. He possessed in a high degree, what we nowadays call the artistic sense. Art in all its forms was a complete passion with him; and with his Provençal wife Eleanor a swarm of foreign artists, painters, sculptors, poets, troubadours, found their way to England. Louis the Ninth was re-building and re-embellishing the Abbey of St. Denys as a place of sepulture for the French kings. Henry had also seen the splendid churches of Amiens, Beauvais and Reims in his journeys through France. His English, his religious, and his artistic instincts therefore all combined to fire his imagination with the idea of making the most glorious shrine for the English king and saint that the world could see.

Henry's work at Westminster began with his reign. He dedicated the newly built Lady Chapel at the back of the High Altar the day before his coronation; and "the first offering laid upon its altar were the spurs worn by the king at that ceremony." Then Edward's Abbey, "consecrated by recollections of the Confessor and the Conqueror," was swept away. Little remains of it now save the bases of those pillars of which I have spoken above.

But now upon the old foundations rose the Abbey we all know and love. In every smallest detail the new church was to be incomparable in beauty. Foreign painters and sculptors expended on it their cunning. Peter of Rome set to work on the Confessor's Shrine, where you may still read his name, and made it glow with gold, mosaics and enamels, the like of which could not be found in England. And when the wondrous building—"the most lovely and lovable thing in Christendom"‡—was finished, the Confessor's body was translated on October 13, 1269, from its tomb in front of the High Altar to the splendid shrine prepared for it.

* "Memorials of Westminster," Dean Stanley, p. 28.

† "Memorials of Westminster," Dean Stanley, p. 46.

* "Memorials of Westminster," Dean Stanley, p. 129.

† "Memorials of Westminster," Dean Stanley, p. 126.

‡ Street. Essay on Influence of Foreign Art on English Architecture.

The king, now growing old, had gathered his family about him for the last time. Edward, his eldest son, was just on the eve of departure with his wife Eleanor for Palestine to join St. Louis in the Crusades. He, his brother Edmund, and his uncle Richard, king of Germany, "supported the coffin of the Confessor, and laid him in the spot where (with the exception of one short interval) he has remained ever since."*

Dear as the Abbey was to King Henry as a monument of his own piety and taste, and as the shrine of his sainted kinsman, yet he must have loved it even more tenderly for being the resting-place of a little child. The Confessor's Church as you will remember was consecrated on Childermas, the Holy Innocents' Day. And it seems to me not without significance, that the first interment of importance in Henry the Third's new building was that of a child of five years old — his beautiful little daughter Catherine. In 1257, during an insurrection of the Welsh which laid waste the Border, and which the King strove in vain to quell — the kingdom desolated with famine, the Barons mutinous and defiant — Henry's cup of trouble was filled by the death of his little daughter.

"She was dumb, and fit for nothing," says old Matthew Paris rather cruelly, "though possessing great beauty." The poor queen fell ill and nearly died of grief at the loss of her little deaf and dumb girl, loved all the more dearly no doubt by reason of her affliction. And her illness — his own want of success against the Welsh — and the little princess's death, so overwhelmed the king with grief as to bring on "a tertian fever, which detained him for a long time at London, whilst at the same time the queen was confined to her bed by an attack of pleurisy."†

The little Catherine was buried with great pomp in the ambulatory just outside the gate of St. Edmund's Chapel to the south of the Confessor's Shrine, and close to the grand tomb of her uncle, the king's half brother, William de Valence. Her father raised a splendid monument to her memory. It was rich with mosaic and polished slabs of serpentine, in much the same style as his own magnificent tomb on the north of the Confessor's Chapel. A silver image of St. Catherine was placed upon it, for which William de Gloucester, the king's goldsmith, was paid seventy marks. The image of course has vanished, like many other precious things. Most of the mosaic has been picked out. But enough of it and of the polished marbles exist to show the elaborate design of the upper slab, while on the wall above it, under a graceful trefoil-headed arch, are traces of gilding and coloring, which are supposed to be remains of a painting of the Princess Catherine and two brothers who died in their infancy.

*"Memorials of Westminster Abbey," Dean Stanley, p. 136.

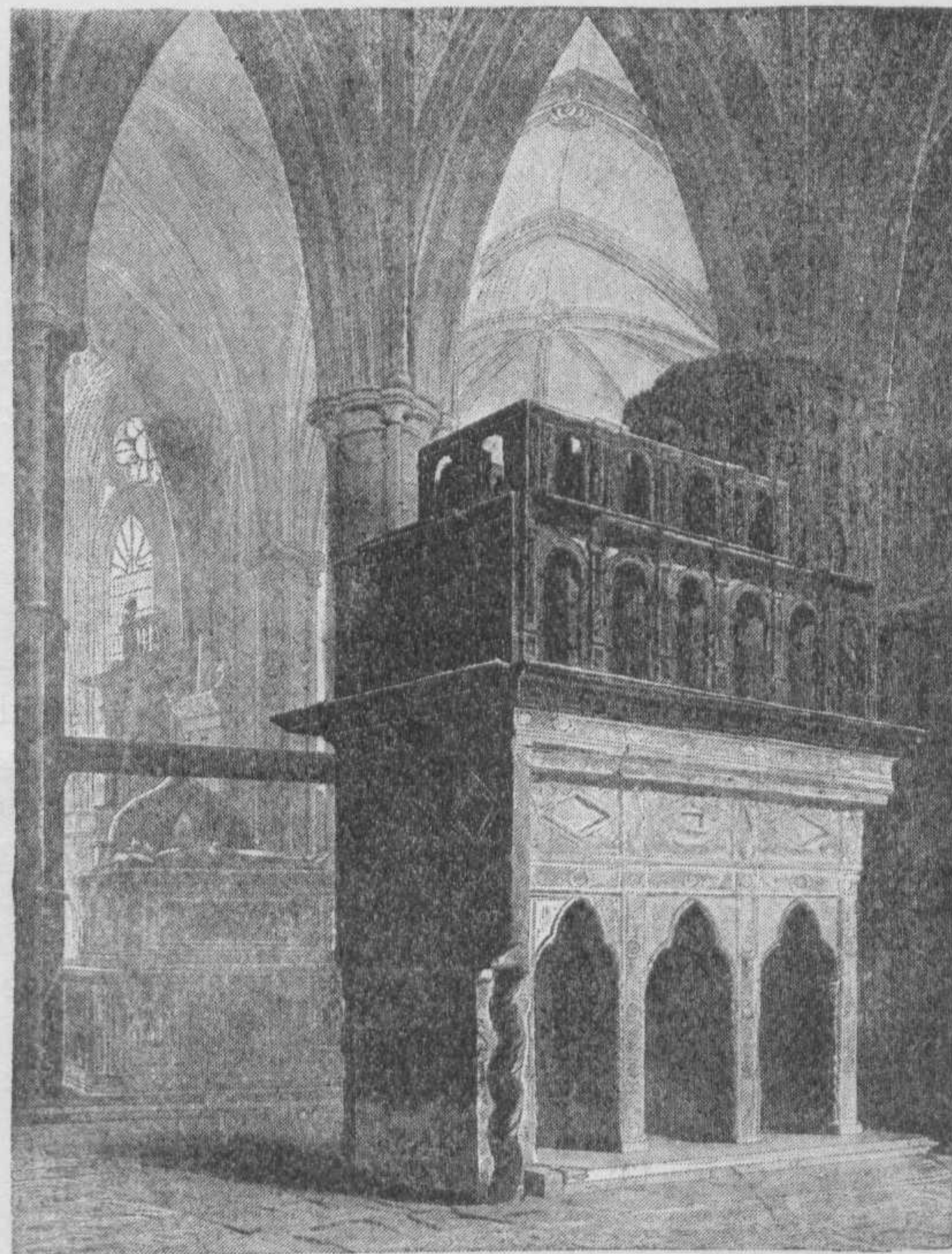
† Matthew Paris' Chronicle.

Here then is the first memorial of the many "Holy Innocents" who lie in the great Abbey — of the children who found a resting-place among

The princes and the worthies of all sorts;

and whose histories we are about to study together. But Princess Catherine was not the only child whose early death helped to bring King Henry's gray hairs in sorrow to the grave. Before the close of his reign another young life was cut short by a crime so terrible as to win a mention for Westminster from the lips of Dante himself.

In 1271, only two years after the translation of the Confessor, the king's youthful nephew, Prince



SHRINE OF EDWARD THE CONFESSOR. — AT LEFT, TOMB OF HENRY THE THIRD.

Henry, son of Richard king of Germany, was returning from the crusade in which St. Louis had died. Charles of Sicily granted a safe conduct to him and to his cousin Philip, son of St. Louis, who was hurrying home to be crowned king of France. But at Viterbo in Italy, while he was at mass in the Church of St. Sylvester, he was stabbed during the Elevation of the Host, by Guy and Simon, sons of Simon de Montfort. It was a fearful revenge on Henry the Third for the death of their father five years before at the battle of Evesham — for their own banishment — for the seizure of their father's lands and Earldom, which Henry bestowed on his son Edmund. All Europe was filled with horror

at the dreadful deed, a crime almost unheard of in its impiety. The young prince's bones were buried in the monastery of Hayles which his father had founded, while his heart was brought to Westminster, and placed in a golden chalice "in the hand of a statue" near the shrine of Edward the Confessor. The old chronicler Matthew of Westminster adds with deep satisfaction, "One of his murderers, Simon, died this year in a certain castle near the city of Sienna: who during the latter part of his life being, like Cain, accursed of the Lord, was a vagabond and a fugitive on the face of the earth."*

Apart, however, from all other interest, the ter-

* Matthew of Westminster's Chronicle.

rible deed will be forever memorable, as it drew from Dante "the one single notice of Westminster Abbey in the *Divina Commedia*."*

In the *Inferno*, the centaur who was then guiding Dante and Virgil, showed them a shade up to his chin in the river of blood—all alone in a corner, shunned even by his fellow-murderers—and said,

Colui fesse in grembo a Dio
Lo cuor, che'n su'l Tamigi ancor si cola.
Inferno, xii., 119.

He in God's bosom smote the heart,
Which yet is honour'd on the bank of Thames.†

* "Memorials of Westminster Abbey," Dean Stanley, p. 140.

† Cary's Dante.

SOUVENIRS OF MY TIME.

BY MRS. JESSIE BENTON FRÉMONT.

I.

THE BODISCO WEDDING.

FOREIGNERS were very "foreign" before steam made ocean travel swift and common, and the foreigners of the Diplomatic Corps at that date were necessarily a more characteristic body than now, when the ceaseless interchange of modern life has modified and levelled differences of all kinds.

Then too, those same obstacles of travel made it necessary to have men here who could settle a question before it should take bad proportions; now it is but a day's work to have questions answered by home governments. Sidney Smith said no feud could withstand social intercourse—no feud can grow with the rapid intercourse kept up by the ocean telegraph.

But with the disadvantages of those days disappear also much that was large—pompous perhaps—but with its own stamp of importance and originality.

Russia has invariably been friendly to us. Far back, when we were just entering the society of nations, it was an ordeal to go as Minister representing not only a new and unknown Power, but one in the dreadful form of a Republic.

Franklin had the only good post, that to Paris, where the local and growing political feeling made a welcoming party for him.

Quite the most trying was that to England, and this had been given to Mr. Monroe. A story of his

early troubles comes back to me as I write of Russian ministers.

At the first state dinner to which he was asked Mr. Monroe found himself seated at the foot of the table between two representatives from German principalities.

"James Monroe doesn't care where he eats his dinner," he said, "but to find the AMERICAN MINISTER put at the bottom of the table between two little principalities, no bigger than my farm in Albermarle, made me mad." So angry, that when the first toast, "THE KING," was given, and all rose to drink it, Mr. Monroe in re-seating himself put his wine-glass down into the finger-glass—splashing the water.

This made his German neighbors exchange sarcastic smiles, and he was rapidly getting too angry when the Russian Minister who was at the right hand of the presiding Minister of State, rose and offered his toast:—

"*A health and welcome to our latest-comer, THE PRESIDENT OF THE UNITED STATES, GENERAL WASHINGTON.*"

"Then I saw clear again," said Mr. Monroe. "And when my country and Washington had been honored I rose, and thanked the Russian Minister and offered as mine—

"*The health and prosperity of our friend, THE EMPEROR OF RUSSIA.*"

Whether the practised diplomat had seen the splash in the finger-glass and the sneers of the German ministers, or whether it was part diplomacy and part courtesy, the effect was, at once, to secure

proper consideration for the Minister from America. Points of social observance are founded on meaning, and this timely graciousness notified "all concerned" that the United States of America had an existence which could not be ignored. We are too powerful now for such remembrances to have other effect than that of keeping our memory green as to who were friends when friends were needed.

The Russian minister of my young days was known to every one, and always made a sort of royal progress of his daily drive to the Capitol from his residence in Georgetown. His horses were not fine perhaps, but there were always four of them to the showy barouche in which he sat — bare-headed half the time from the incessant returning of bows. He was a popular man with all classes, for he was intelligent — really amiable and preferring to give pleasure — and he was said to be rich and was certainly "showy" — awfully so we would think to-day, when no man could go about his daily business with that glitter of varnish and brasses and those four prancing, long-tailed black horses without a cry of "circus" following him. But only a few smiled over it then.

He had found in Georgetown a house large enough to suit him and made it as showy as his other belongings, and his numerous entertainments were the pleasure and talk of the time.

At Christmas he gave one for children. His two very young nephews being the pretext for a fête none of us had ever seen the like of.

It was a snowy night, and as there was no gas then, the approach up the hill was marked out by beacon lights flaring in the stormy wind. All the house was illuminated, and an empty square in front had great fires burning, for the coachmen to go to, as in St. Petersburg; and a strong temporary room of wood and glass, brightly lit and carpeted, had been built out to cover sidewalk and entrance and atone for our wretched out-door system of entrances.

Once within, fairyland began. The flowers and lights and pretty refreshments we knew, but this great double house, opened to the third floor, with everywhere everything children little and big could fancy! — this we did not know.

The galleries had been permanently enclosed, curtained, mirrored, carpeted and pictured. Now in two of them were wonderful red and gold swings. Tables were covered with toys, games, picture books and stacks of little satin bags with "Bon-Bons" in gilt letters. And these were for us to take home.

Dolls too!

And in the dressing-room whole boxes of little white kid gloves and pretty fans and bolts and bolts of all colors of light ribbons, and such picturesquely dressed maids to repair any damages to our hair or dresses. We danced too — but that we did not care for — dancing was only lessons; but this world of toys and sweets and pleasant faces was the real joy.

Fancy the stir when it was known that this dazzling personage was to marry the very young daughter of very quiet people in Georgetown.

In our small world of the school at which I was for two years in Georgetown this young girl had also made a commotion.

The principal, Miss English, a most cultivated lady of Danish family, had a staff of twenty-five teachers — each unusually well qualified for her department; and she had much pride in the attainments of her scholars, who were daughters of important Southern families, of members of the Government and Senators and members of Congress and army and navy families. Many a woman who has since had part in large events owes much to this dignified upper-class school and the ladies who so fitly presided over it.

On the heights of Georgetown were still the fine gardens and homes of old families who were very nice to us — the boarders — and gave us strawberry parties and rose parties and had pleasure in treating us on our future footing of society equals. Eleonora Calvert — Georgia Washington — Mildred Fitzhugh — many Southern names of our history, past, and now, were on the roll of an average of a hundred boarders and as many day-scholars, and "family" and "fine manners" as well as study were important.

I am afraid I did not study much. Mere book-instruction was flat and unprofitable to me after my delightful home-teaching. A congenial spirit used to join me in escaping recitations by taking refuge in the leafy top of a mulberry-tree where she told pranks of her midshipmen brothers to me who had never seen the sea then — nor a ship nor a midshipmite. Annie and I contentedly took our "deprivation of recess" for this enjoyment until a cruel teacher broke us up by looking down from an upper window to see what made so much color and sound in the big treetop.

Naturally we were in sympathy with other idlers and one May-time a party of us fell below the high standard of the school and carried the election of our candidate on new issues. First because she was beautiful. Then she was a good-natured, generous girl who brought us lots of flowers and fruits, and who could play heartily.

Imagine then our feelings when this regular election was calmly set aside "by the *principal and all the teachers*" — because of the constant, repeated and unconcerned indifference of our May Queen to her studies.

It was thought well to make her an example and a warning — also, I suppose, to encourage the good girls, for we were told our May Queen should be a girl "*who had the entire approbation of all the teachers*," whereupon Miss English produced the blushing, shrinking, really lovely girl who obeyed that, as she obeyed every other order, to be the May Queen.

But we, the commons, rallied on the playground and there in safety let loose our unavailing wrath against our tyrants, and swore loyalty to our Beauty.

She did not care — but took it all with smiling composure. It would make her father so angry, she said, that he would take her from school (she was a day scholar) and so, for awhile anyway, there would be a holiday for her.

We decided on a mutiny, and organized a headache all round for May-day; when our large squad was marched off to the Infirmary and heroically accepted our penalty — the tea-cup full of senna-tea ordered (and worse luck *enforced*) for “headaches.” We soothed our disturbed stomachs however by the certainty that our keeping away spoiled the fête.

they must be names that were known to the public. Then the groomsmen must be suited to his dignity (and age), consequently it was April and December all through.

With this came the vexed question of precedence. The English minister, Henry Fox (of the Holland family), was a man who went nowhere unless compelled by strict etiquette. His only pursuit was cards. Long since his debts had exiled him from England, and in Moore’s Life of Byron there is a letter from Ravenna in which Byron says, “I met yesterday Henry Fox so changed that his oldest creditor could not recognize him.” He was now a withered, cynical, silent, gray little old man.

Of equal right to a first place was Mr. Buchanan



THE WEDDING CEREMONY.

Judge, then, of the pride — the triumph — we felt, when it was announced that Bodisco the splendid was to marry our candidate! That he was far past sixty, and she but sixteen, was a mere detail — the main fact was that we were endorsed by a higher authority even than “the principal, and all the teachers.” And when to this came the added fact that I was to be one of the bridesmaids, our triumph was complete.

Bodisco possessed the whole science of ceremonies, and the *manner* of the marriage was of governing importance in his mind. The bridesmaids must be young, to harmonize with the bride. Also

who had been Minister to Russia, and was at present Senator.

Bodisco consulted my father among others on this troubling question, “as to whether Russia should give England or America the first position?” which was compromised by the happy thought of making both first; by placing us in couples and not as usual, the bridesmaids by the bride and the groomsmen by the groom, but Mr. Fox with the sister of the bride would be next the groom, while Mr. Buchanan and myself were to be next the bride.

It was while he was talking of this to my father

that for the first time the personality of the bridegroom came clearly to me. Unlimited holiday, cake, fine gowns, a general delightful upsetting of all use and wont of school life had been my only impression. Now, contrasted by my father's superb physique — his clean, fair noble presence, his steady blue eye and firm mouth — the curious ugliness of Bodisco came out painfully.

He was a short and stout man with a broad Calmuck-face, much wrinkled, and furred across by shaggy whiskers which joined into the mustache over a wide mouth with rather projecting teeth; a shining brown wig curled low over shaggy eyebrows and restless little eyes, while his manner was at variance with all my ideas of dignity.

Suddenly I had an instinct into another aspect of this gay marriage.

But it was too busy a time for thinking. The dressmaker — the drill in the management of my first long skirt, the being drilled to the programme of this performance (which we had in written parts and studied as for a play), the getting used to keep awake after nine o'clock, etc., etc., etc., filled all the time. Of course I had been brought home from school and had a thoroughly good time — every minute of it.

Bodisco had planned our toilettes as well as every other detail of the performances. The dresses were to be *very* long; of white "figured" satin, with blonde lace about the neck and sleeves; a high full wreath of soft white roses, a fan of ivory and white feathers, and a great bouquet of white camelias: the most elegant of bouquets then before the poor flowers were lowered by a French pen to one meaning only.

The imposing "Mrs. Abbott, Milliner and Mantua-maker, from London," herself built my gown.

When the great day came I seem to have been all the morning in the hands of one and another, paraded up and down, delighted with my finery as well I might be, for it was a rich and stately dress; although the skirt *was* plaited on full all round from the tip of a long point in front to another long point behind, the stuff cut away to let the long slim waist come well down into the soft fullness below — and although we had *sleeves*, and to the sleeves a frill of lace falling over the elbows, and a "tucker" of lace from the top of the decently-cut low body, and the wreath was not bad either in its effects.

It was a lovely day in early spring, fortunately, for though it was a wide and roomy house the company overflowed into hall and piazzas and the grounds, while out in the road (it was on the heights of Georgetown) the crowd of carriages was swarmed around about by a throng of outsiders. It was like a gay country fair with its cheery moving crowd.

The President, Mr. Van Buren, was there. All the officials, of all kinds. All the Diplomatic Corps, in full dress — army and navy officers in full uniform and a crowd of ladies in full morning dress.

What a dazzle for this quiet family of a clerk whose small salary and many children had kept him from any contact with this phase of life. The bride was of course entirely unknown to the Washington world, and from her youth, hardly outside of her family. Bodisco put back all offered visits, saying she was too young, it was best to wait until she should have him with her to receive in her own house, and it was understood that she was not to be seen until the morning of the marriage. You can fancy the curiosity of the guests.

We, with the bride, were in an upper room waiting our signal to descend. The bride was in great glee peeping between the blinds and laughing at the crowd outside, and it was: "Girls! here comes the carriage, see the satin rosettes on the horses! (the long-tailed prancing blacks) and the big bouquets on the servants, and Bodisco says I *must* wear this cloak when we drive off. Hot thing! and oh, here's your flowers (the camelias), and here's a pearl ring apiece from Bodisco, and I am *so* hungry, but I can't have anything until we get breakfast at *his* house."

Then the anxious master of ceremonies came up — paper in hand, reading out our names in order and marshalling us down the narrow back-stairway with many charges as to our precious gowns (we, now, all silent and "on duty"), to the large room where the ceremony was to be performed. Here waited the venerable groomsmen and also Henry Clay who was to give away the bride.

Then Bodisco, with his paper still in hand, directed each couple into proper position. The bride and himself to face the folding-doors. To his left Mr. Fox in scarlet and gold court suit — his rough gray eyebrows frowned over his half-shut eyes and his whole look and attitude a protest — while by him was a smiling rosy little blonde of thirteen, sister to the bride.

To the right of the bride was Mr. Buchanan, tall and of fine presence and quite a type of Saxon coloring and freshness despite his silvered head, and with him, myself — aged fourteen.

The Chevalier de Martini, Minister from the Hague — not young — large, placid, easy friends with every one, and in a softly-amused state of smiles, had the eldest of the bridesmaids, a girl of sixteen, the daughter of Commodore Morris.* Her pensive beauty was already touched with the hectic flush of the disease which ended her young life soon after — as it had that of an elder sister in whose memory the "LOUISE HOME" was founded.

Of the eight couples only two were of equal youth; Smith Van Buren, the President's youngest son, and Kemble Paulding, also under twenty, and whose father was Secretary of the Navy — these had been given two pretty cousins of the bride.

* Many years after at a dinner in New York, when he was famous — and old — Admiral Farragut talked to me of that wedding and of the lovely fading girl who was, he said, the unattained dream of his young time.

She herself rose above them all — fairest and tallest. Her dress was fashioned on that of Russian brides and was of rich white satin with much silver lace — soft and flexible as silk lace, but of most rich and luminous effect. On her yellow hair rested a coronet of red velvet covered with diamonds, and from that fell, over the shoulders, and far down the long train, an exquisite veil of silver lace, light and sparkling as cobwebs on the grass when the first level morning sun lights up the dew-drops on them. Large ear-rings of diamonds trembled against her rose-leaf cheeks and shone on her long white throat — she was

—as fair a bride
As e'er the sun shone on,

While *he* — !

But he was content. When we were arranged quite to his taste, in a horseshoe curve — the glistening white dresses and young faces and flowers thrown into higher relief by the age and court dress of the men, while Bishop Johns in full canonicals, and Mr. Clay tall and dignified, made the contrasting touch — Bodisco gave a last reviewing look, then ordered the doors to be rolled back. Certainly the guests saw a beautiful tableau — whether painful also it was for each one to judge. But of this we had no thought. To go through our parts with ease and dignity, to remain in position during the ceremonious congratulations and only speak *in answer*, to group around the bridecake with its ring, and offer it to those coming to its special flower-dressed table, these were our limit. The next act was the retiring in procession, to descend to our carriages. The great wrap of white satin and swansdown *had* to be worn — it was part of the programme. And we, each with a little “tip-pet” the same as our gowns, with a border of swansdown also, passed gravely through the fine company which opened a way for us, bowing in silence in return to salutations, and each couple entered their carriage; when the procession moved slowly through the crowd down the hill to Mr. Bodisco’s house, where, at last, we were allowed to be natural. For Bodisco was a most kind, amiable man and the bald old house-steward Dona understood young people.

We were in “for a full due” — a whole day of it. The wedding breakfast was only a part. A great dinner of forty persons was to follow our *matinée*. We bridesmaids were not let to go home; it was not safe to disband the young troupe until the evening performance was over.

Our venerable escorts retired after the breakfast, while we were given the range of one floor to ourselves with all manner of picture books and games laid out, but the excitement, the heavy dress and the wrong hours we had been keeping made of us

a sorry little company. A kind aunt of the bride knew what was best for us and soon, with our wreaths laid away and loose, short gowns over our finery, we were carefully disposed upon sofas, and slept over into freshened color and spirits.

A great feast was not new to me, but this was my first unaided appearance as a chief actor, and in place of my proper muslin and sash I was in grown-up finery and one *does* act up to their dress. I never, in any country, have seen such really elegant as well as thoroughly splendid dinners as those given to my father in New Orleans by his friends and clients among the wealthy planters. In their vexatious business visits to Washington we were often their “little interpreters,” and now back at home they insisted on including us in their hospitalities. Just lately, too, Mr. Van Buren had given a dinner to his son, Smith, but this was a *very* young people’s dinner, and to me the President’s house was old familiar ground.

There had been so much said of this marriage that it seemed as though *all* must be different. But except the queerly disproportioned ages of part of the company, it was like other great dinners. Longer then than would be endured now — and with great stateliness. Sitting facing the bride and bridegroom I was directly under our manager’s eye and acquitted myself so much to his liking that he asked I might come frequently to spend a Saturday with the bride.

This was not to be, however — the tremendous sick-headache following all this upsetting of a simple life made the decision that I was to be returned to that way of living after one more dinner, that given by the President. Here again Bodisco prepared his tableau. He gave us our directions in the dressing-room, and our little procession crossed that windy hall into the drawing-room. Mr. Van Buren had it, later, somewhat protected by the glass screens that now extend across, but many a cold was taken there after wraps were laid aside.

We were grouped either side of the bride, our bright white dresses serving as margin and setting to the central figure. This night her dress was of pale green velvet. Its long train having a border of embroidery in gold thread not brighter than her yellow hair, and pearls and emeralds were her ornaments.

Mr. Van Buren had great tact and knew how to make each one show to advantage. He was also very witty, though he controlled this, knowing its danger to a man in public life. But it was all there for a right use.

He had been Minister to England and the silver gilt dessert service he got there he had brought to the White House. In the speeches made against him at the election in which he was defeated by General Harrison, his opponents always made a contrast between the “log-cabin life of the old soldier” and the “effeminate” life of Mr. Van Buren.

The most telling of these speakers was a Mr. Ogle, who made a great point of the "gold spoons." He had been one of Mr. Van Buren's most frequent guests. Mr. Van Buren was asked if Ogle was right about those "gold spoons." "He ought to know," was his answer, "he has often had them in his mouth."

With such a host, in such a house, the dinner and the invited reception that followed had to be beautiful and a success. That old mirror-plateau has never reflected such an odd company — and it has seen much.

"Little pitchers have large ears." We had heard, and made afterwards our own comments on, a speech made by a lady near us during the cake-cutting.

"Now *this* is a good match. The first since Mrs. Calvert drove away from St. John's Church in her carriage and four — the Washington girls have been marrying poor army and navy officers and turning into dowdies instead of keeping their place in the world and having a handsome house to receive their friends in."

Some of those "poor army and navy men" have since been of such large use to their country that the girls who decided for "Jock o' Hazledean" rather think they got all.

But this marriage of Bodisco's was a happy one to him and evidently of contentment to her. Much of the frothiness of his ways was dropped and he came into a new condition of esteem as his good domestic side proved itself. An occasional visit to Russia, where she was very well received, their children, the usual life of society in which she took her part amiably and well, carried them over the next ten or twelve years, when he died.

From the date of his marriage he had made all her family his. Giving sound training to the young ones, providing for all, and in every way gaining for himself the respect of many who thought it a risky marriage. In his will, he hoped she would

marry again and be as happy as she had made him.

She married an English officer and has lived chiefly in India, and I am told preserves much of her unusual beauty notwithstanding great stoutness. Bodisco always kept a very kind feeling for me and was greatly pleased with every success that came to me — most, when I was "*restored* to Washington Society" by being in the Senate. Official position had come to mean a great deal to him — it was in his mind the "guinea's stamp."

Many of us who had made part of the marriage were again gathered in the large hospitable house for the funeral of its head.

Through misplaced family feeling their clergyman had been asked to make "an address" which proved narrow and one-sided, though well-meaning.

He deplored the "errors" of the creed in which the departed had been trained, but "trusted his closing years had surrounded him with such improving influences that we might yet hope," etc.

Near me was standing that clever, practised writer and man of tact and society usage, Mr. Seaton. We exchanged looks as this almost unkind talk rolled on and on.

But when the clergyman repeated: "And if our departed brother's spirit could look down on us now he would say" —

Mr. Seaton whispered — "He would say, '*What a bad-manage-ceremony.*'"

What might have been said was what we all knew and felt, that there was a man who had filled the law of kindness to his family, and who had made himself the careful and wise head of the whole family of his young wife — whose life of ceremonies and show had not changed the real goodness of a nature which in this later light won many friends for him. And many who had had their jest at the marriage had now only a sincere prayer for the good old Russian minister.

THE TEMPERANCE TEACHINGS OF SCIENCE.

I.—THE NEED OF KNOWING THE FACTS.

BY MRS. MARY A. LIVERMORE.

LESS than a quarter of a century ago, our nation was in the agony of a protracted sanguinary conflict. To-day, we speak of it as "The War of the Rebellion." For four years the people of the North and South were arrayed against each other in deadly hostilities. And not until hundreds of thousands had been slain on battle-fields, or had died in hospitals, was peace declared. During this

war, "recruiting offices" were opened in all the large towns and cities of the country, where men were enlisted as soldiers. For soldiers were in continual demand, not only to augment the army, but to make up for the losses incurred on battle-fields, and in hospital.

Not only did the country need a large army, it needed an army of strong, sound, healthy men. So

when a man had "enlisted," he was sent from the recruiting office to the "examining surgeon," to undergo rigid bodily inspection. If the surgeon found disease in the heart, or lungs, or brain, or in any part of the body, if the enlisted man had defects of vision, or hearing, if he had lost a front tooth, and could not bite off the end of a cartridge, or a right thumb, and could not cover the vent-hole of a cannon, if he was maimed, deformed, defective or unsound in body, the Government refused to accept him as a soldier. He could not be "mustered in." For the business of war requires the highest bodily efficiency, and feeble or crippled men are not equal to its tremendous demands.

Every young man and maiden of our country is on the verge of a longer and more important conflict than were the soldiers of the War of the Rebellion. For the world is a vast encampment, and every human being is a soldier, drafted for service. No substitute can take another's place, nor can a discharge be obtained from the battle of life, till God grants it at death. "War a good warfare!" is the order that rings down the ranks from the great Captain who commands these hosts.

Even more important to success is bodily strength and efficiency in the battle of life, where all do service, than they were in the War of the Rebellion, where only a million were mustered in. For a good physical condition is one of the great pre-requisites to successful living. To live worthily or happily, to accomplish much for one's self or others, when suffering from disease and pain, is attended with great difficulty. The very morals suffer from disease of the body. "Every sick man is a rascal," said the great Doctor Johnson.

The subject of physical education has already received large and careful attention in the C. Y. F. R. U. Readings in WIDE AWAKE. Its importance to the young cannot be unduly emphasized. For out of the schoolroom of to-day are to come the skilled workmen and women of the next generation—the physicians, clergy, lawyers, judges, legislators, merchants, manufacturers and navigators—all who are to carry on the work of the world.

Civilization has already outrun the bodies of men and women. Its complicated work taxes body and brain almost beyond endurance. In addition, the self-indulgence of the age is so general and wasteful that it creates physical degeneracy, and mental imbecility. It crowds the hospitals, peoples the asylums, increases the tenants of almshouses, fills the prisons, empties the churches, dethrones manhood, and brutalizes alike the rich and poor. I allude to the indulgence in intoxicating drink. All the while, the severity of the struggle for life increases, and the difficulties of earning a livelihood grow intenser with every generation. What is to be done?

The young must be taught the hygiene of intoxicating drinks. It must enter into their school edu-

cation. They must be carefully instructed in the damaging physiological results of indulgence in the cider, beer and wine, so largely used as beverages, and which, in the main, become as destructive as the stronger alcoholic liquors. They must be trained to maintain serene dominion over appetite—to lead lives of wholesomeness—to practice rigid total abstinence from all that can intoxicate. Plato laid down the rule that boys must not taste wine until they were eighteen years old. The early Romans forbade its use till a man had reached the age of thirty. The Spartans denied intoxicating drinks to their sons, and compelled their slaves—the Helots—to get drunk in presence of their young men, that they might witness the degradation of drunkenness. Their great aim was to develop a superb physical manhood.

Science to-day teaches that alcohol is not only not a food, but a poison. When we say a man is "intoxicated," we simply say that he is poisoned. For our word "intoxicate" comes from the Latin word "toxicum," which means poison. From this we have the word "toxicology," which is the science that treats of poisons. If one takes into the stomach meat, bread, potatoes, or other food, it is digested, and converted into muscle, brain, bone, or some other part of the body. Thus by food, the waste of the human system is repaired, which is occasioned by the work of life. But when alcohol is taken into the stomach, that organ resents its intrusion, and drives it into the liver, which, in turn, forces it to the heart, and that throws it into the lungs—and so it goes on, in its unwelcome and compulsory tour through the body. Every organ rejects and expels it, the liver, bowels, kidneys, lungs and skin all throwing out a portion of it, until the system is rid of it. In this process of expulsion, every organ, by and by, becomes seriously damaged.

At last, both body and mind are ruined. The perceptions are bewildered, the memory weakened, the reasoning power clouded, the moral sense benumbed, the will dethroned, the self-respect dead, and there is no vice or crime to which the victim is not liable. A terrible dipsomania is established, when there is only an insatiate craving for alcohol, that knows no bounds, and for which there is rarely any cure.

When to the wreck of the individual are added the appalling facts that four fifths of all the criminals in the prisons, four fifths of all the paupers in the almshouses, three fifths of the insane in asylums, and one half of the idiots, are the direct products of strong drink, how ghastly is the record! Ought not these facts to constitute a powerful array of reasons why the youth of to-day should vow in high honor absolute and life-long aloofness from all that can intoxicate?

NOTE.—In a series of articles following this Introduction by Mrs. Livermore, an eminent scientific writer will trace the course and physiological effects of alcohol in the human system.

WAYS TO DO THINGS.

BY SARAH ORNE JEWETT.

XXVI.

TOWN CLERKS.

EVERY year of my life I find myself sorrier that I did not get into the habit, when I was growing up, of making notes of the facts and fancies that interested me. My father had an immense fund of knowledge of the local history and tradition of our native town, and I was always very much interested in what he had to say. During a long experience of practice as a physician he had an excellent opportunity to make himself acquainted with what information belonged both to his contemporaries and the generation before his own. Beside him I had several friends who were very old people and whom I used to like to visit because they were so entertaining with their stories of the old times: of their own childhood and the people who had borne the same relations to them as they did to me.

But the years went by, and now I would give anything if I had kept at least some of the very valuable knowledge which has utterly perished with my elders and betters just because I had not enough wisdom and forethought to now and then write a half-page of records. I remember vaguely the once familiar stories which used to delight me, but I cannot tell them again with accuracy, or be sure of many dates or names which I should be more than glad to turn to in some little note book.

There are some persons who have the power of memory developed to a marvelous degree—who are living encyclopædias, and who are rarely to be caught tripping in any statement. But these are by no means common and are very apt early in life to direct their gift into some special channel. If that is not the case they just let their lives drift on without any place—their minds are like rag-bags out of which one may sometimes pull a piece of cloth which is large enough for some use, but where most of the contents are utterly worthless; conspicuous only for their quantity. And these persons who have never trained and employed their memories cannot be depended upon as recorders, so we will count them out of this plan. Most of us can remember pretty well the things which most closely concern us and which minister to our chief interests—that is, we remember them for a time and then, if they are not great leading facts, but only details and suggestions, they fade away.

It is a great deal better as Hamerton says, to have a selecting memory than a miscellaneous one, which holds no end of useless matter, but for all that we waste and lose a great many things it would be for other people's advantage if not our own, to keep. Perhaps we can apply this thought to other things afterward, but first I should like to gather a Company of Town Clerks.

Every town elects a man to keep the records because people have long ago found out that they cannot get on comfortably without a systematic registration of the most important facts of their history. If you go to the town clerk's office—I am speaking first of all to country boys and girls—you will be surprised to find that the town has been keeping a sort of diary ever since it was a town at all, and I dare say that you will take the oldest volume in your hands first and turn over its yellow leaves with a good deal of reverence. The early records will seem very interesting to you, and you will find your own family name perhaps, before you have read the first page, and then will look with great eagerness to see what your grandfather and his grandfather were busy about. There will be the record of their births and marriages and deaths perhaps and you can piece out the outlines of your family history. I shall not say much about these old books because if you really care about them you will go to the town clerk and ask if you may look at his little library very carefully—and if you don't think it worth while to spend your time in this way, there is no use in my trying to persuade you. Perhaps you will think you have spent an hour very wisely, and will begin to understand one of the ways in which people fit themselves for the writing of history. If you should go into any of the great storehouses of English records you would be pretty sure to find several persons busily at work over the great volumes, some making notes from the documents of the time of Queen Anne and some reading carefully the worn and crumbling parchments which gave his title to the Master of Rolls. These gentlemen and ladies will spend many days in such research if they are going to write a chapter of English history, and there are certain periods when partisanship and rival factions in politics have left opposing accounts of people and events, so that the historians of to-day are still taking sides, and Queen Elizabeth and Queen Mary of Scots, for example, are rivals yet, with troops of faithful followers. Many a lie

has been given to the keeping of these faithful pages and while vexed questions puzzle the scholars, which the brown pages could easily have been made to answer, they tell no secrets—they are deaf and dumb—the old record books, though we cannot help thinking they have a certain wisdom of their own and are conscious of the past.

But, to come back to our own time, here in America; I cannot help feeling that there ought to be more than one clerk for every town. The one who is regularly appointed can do all the most important business; can go to the town-meetings and make out the marriage licenses and do all that sort of thing, but he will be sure to leave out a good many things that people will like to remember, and to make sure of a great many years from now, when we are dead and gone.

I said at first that I was so sorry that I did not write down some of the dates and stories which my old friends used to tell me, and so I am going to urge you to profit by my regret. Every boy and girl will readily think of some friend who can remember what happened a great many years ago—perhaps it will be your own grandfather or grandmother, and your eyes shine as you think how many times they have told you stories of their childhood and youth, and of the men and women who were most interesting and important then.

Now, don't get a sheet of paper and sit down before the dear old souls as if you were going to insist upon their making their wills or to do some other uncomfortable things; don't say to them: "Who did you use to know and how old was he?" or attack them in any foolish way. When some evening has been spent most pleasantly in talking about old times, and they have been exercising their memories in a most delightful way both for your sake and their own, just try to see how much you can save for yourself; try to write down all you can think of easily. Perhaps they will begin by saying how the village has grown in the last fifty years; how the place where somebody's fine house stands now was a bit of rough pasture land, and then they will go on to tell you who cleared that up and built a little house when he was married, and then you can ask whom *he* married and will quickly learn all the fortunes of the family. You will be perfectly amazed to find out how much that is interesting has happened to that one small piece of land—how many people have owned it—or else the varied successes and misfortunes which have come to those who have lived there, three generations it may be, since your grandfather was a boy.

There are two good sides to spending an evening in this way—you will be sure to learn something and it will give pleasure to the one who entertains you—besides this, you will be making it easy for yourself to be accurate in making notes and in paying attention to a speaker, and these

things will be most valuable to you all your life long. I remember my father saying to me when I was a little child that I must get into a firm habit of listening carefully if I tried to listen at all, else I should not be able to listen to or remember the things I really cared to keep. It used to seem to me very stupid and unnecessary when people talked to me about disciplining my mind, but I have learned now what they meant and how hard it is to do without such discipline. It is to have one's mind under control, to be able to use it, and to make it work accurately. There are some lessons at school which are very uninteresting while one is studying them, but because you insist upon your memory holding fast the truths of them, and your reason working with the rules of them—you can take up any studies of the same sort afterward with very little difficulty. If you can't learn to play one game of marbles you will probably bungle at all, and if you can't muster enough cleverness of fingers and sense of harmony to manage one set of scales and exercises on the piano you will probably never make a musician.

I don't believe that we all need aim at being historians, yet I am sure we should not be sorry if we began to fill a little blank book with bits of interesting fact about the history of our own towns, of their most noted men, and most striking events. By and by when you are grown up it may happen that somebody in the family will say, "Now, Grandmother could have told us all about that—she used to speak of it often, but I have only a vague recollection of the story." Then you will suddenly remember the little record book, and find it on a top shelf with its pages written in your childish hand which seems already unfamiliar, and there will be the few lines which it will be such a satisfaction to have. Perhaps it may be very important to somebody else if not to you.

I am not sure that it is wise to keep a diary, for most of us have not anything that is worth writing about in every one of our days, but I do believe that it is worth while to have a sort of journal where we can keep some account of the most important things, if only for the pleasure we shall have in looking them over by and by. There are many charming books which the world would have been sorry to miss—that were made up in just this way, of personal reminiscences, and notes of men and things—and a few like Mr. White's History of Selborne which is a plain record of a very small English village and its wild birds and animals and out-of-door life. You have no idea how much more interesting it will make the whole world to you if you carefully acquaint yourself with the smallest part of it. Don't try to make a fine story out of what conversation you hear. Just begin by putting down short notes—or if you find you can remember part of a long series of reminiscences write them on alternate lines of your page and when you

hear the account repeated you can fill in the gaps. Your friend will be pleased enough if you ask within a day or two whether his grand-uncle's name was John or Jonas, or whether it was 1822 when he saw the town in such gala dress and was one of the great procession and took part in the festivities in honor of Lafayette — or whether it was your great-uncle or his, who was taken prisoner and carried to the island of Jamaica in the war of 1812. And you will find out about the old ministers and doctors of the town — and a great many things well worth keeping. I can't begin to tell you all the advantages it will be — first to listen carefully, then to make written notes, and most of all to tell things yourself just as they are, with certainty and simplicity. It will do you more good than formal compositions and you will soon learn to discriminate between worthless incidents and valuable ones —

though I advise you always to follow your own instincts and write exactly what seems most important to you at the time. Tell about yourself and what you do if you think it will be wise to know the true facts in the case twenty years after. You won't care to know that the Fourth of July, 1884, was a pleasant day, but you will care to remind yourself that you were this figure or that in the Antiques and Horribles. When you read that you will remember the whole day well enough. Certain facts are the keys to whole store-rooms in your memory, and those are the ones to be written down carefully in your best round hand.

But this is all about being your own clerk: I hope you won't forget to be assistant town clerks as well, and rescue every bit of the town history you can find, floating about in the river of everyday talk.

BOYS' HEROES.

BY EDWARD EVERETT HALE.

I.

HECTOR.

BOYS are jealously exclusive in the choice of their heroes, and have not many.

I asked some of my younger friends why Hector was a boy's hero, to receive these replies:

"Oh, because Achilles was such a hog." Another boy said,

"Oh, you like the Trojans, you know, and you are sorry the Greeks beat them."

I tried to find out whether Hector's gentlemanly traits, of which he has more than any hero of the Iliad, had anything to do with the preference of Hector to Achilles. Do boys like Hector the more because he was kind to Heber — because he was fond of his wife and his baby? To these questions I have found no satisfactory answers, and I throw them out for discussion among my young friends in Dallas and other places where they read the *WIDE AWAKE* intelligently. Perhaps some of them will drop us a letter.

Hector had the advantages and the disadvantages of an oldest son. He was the oldest son of Priam and Hecuba. All along, apparently, he was befriended by Apollo. I suppose that is a short way of saying that he was handsome and graceful, learned his lessons quickly, sung well and danced well, and got along with the other boys without

frequent rows. I suppose it also means that he had good health, which is the best thing a boy can have — that he liked to live in the open air, and that is the best taste a boy can have. One account says squarely that he was Apollo's son. But that is hardly any affair of ours. For our business in these little papers is chiefly with history.

According to Homer, Priam had fifty sons, of whom Hecuba was mother of nineteen. Several of these sons appear in the story, and Alexander or Paris played the central part in the beginning of it. But I remember nothing which is said of their education, excepting Hector's own statement that he was

—bred to martial pains.

Achilles was specially put under Chiron's care, as if Chiron were a sort of tutor.

Achilles was also "tutored" by Phœnix, to use a very bad word, which is, however, a convenient one. But of Hector's tutors I remember nothing — and schools, I think, were not then invented. Somebody taught him to tell the truth and to fight the enemies of his country. That is the heart of all education, as you will learn when you come to read Amyas Leigh. I think he knew how to read, but of this I am not certain. I doubt if he could spell. But he could run well — only too well. He could swim, I think. He could har-

ness and drive horses. He could play with a baby. He could be good to his wife. Here are all the essentials gained in a good education. As to the question which some readers will think most important — whether he played ball — there can be no doubt that he did. They all played ball, and played it very well. You will see that Hector, even in the royal family, could have selected a good nine from his own brothers, and another nine to play against, and an umpire. And still there could have been a good company of brothers and sisters to look on.

When the Greeks landed, it was known by an oracle that he who landed first would be killed. Laodamia wrote to her husband Protesilaus,

Be thine the thousandth in a thousand ships.

But Protesilaus either did not receive the letter or disregarded it. He was the first Greek to spring ashore, and Hector was ready and killed him. So Hector, on the side of his countrymen, struck the first blow.

You will find this story in "Lucian's Dialogues of the Dead," an amusing book, in which are a good many of the later traditions which had grown up about the older Greek mythology. It is not in the Iliad. In the Iliad, Hector appears first where he reproaches Paris, his brother, for running away from Menelaus. Remember that it is the wife of Menelaus whom Paris has stolen; and that thus the whole war began:

As godlike Hector sees the prince retreat
He thus upbraids him with a generous heat;
"Unhappy Paris! but to women brave!
So fairly form'd, and only to deceive!
Oh, hadst thou died when first thou saw'st the light,
Or died at least before thy nuptial rite!
A better fate than vainly thus to boast,
And fly, the scandal of thy Trojan host.
Gods! how the scornful Greeks exult to see
Their fears of danger undeceived in thee!"

Hector then challenged Menelaus himself. Here is the result:

Stung to the heart the generous Hector hears,
But just reproof with decent silence bears.
From his proud car the prince impetuous springs,
On earth he leaps; his brazen armour rings.
Two shining spears are brandish'd in his hands;
Thus arm'd, he animates his drooping bands,
Revives their ardor, turns their steps from flight
And wakes anew the dying flames of fight.
They turn, they stand; the Greeks their fury dare,
Condense their powers and wait the growing war.

Where Hector march'd, the god of battles shined.
Now storm'd before him, and now raged behind.

Amazed no less the great Tydides stands:
He stay'd, and turning thus address'd his bands:
"No wonder, Greeks, that all to Hector yield;
Secure of favouring gods, he takes the field;
His strokes they second, and avert our spears;
Behold where Mars in mortal arms appears!"

Retire then, warriors, but sedate and slow;
Retire, but with your faces to the foe.
Trust not too much your unavailing might;
'Tis not with Troy, but with the gods ye fight."

There follows a general battle. Even Ares, the god of war is wounded, as he fights on the Trojan side. Hector goes back to the city to ask his mother to pray to their fast friend, Athene, for relief. It is then that he has the famous interview with his wife Andromache, when the little boy is afraid of the helmet.

Thus having spoke, th' illustrious son of Troy
Stretched his fond arms to clasp the lovely boy.
The babe clung crying to his nurse's breast,
Scared at the dazzling helm and nodding crest.
With secret pleasure each fond parent smiled
And Hector hastened to relieve his child —
The glittering terrors from his brow unbound,
And placed the beaming helmet on the ground;
Then kissed the child, and, lifting high in air,
Thus to the gods preferred a father's prayer:
"O, Thou! whose glory fills the ethereal throne,
And all ye deathless powers, protect my son.
Grant him like me to purchase just renown,
To guard the Trojans, to defend the crown;
Against his country's foes the war to wage
And rise the Hector of a future age.
So, when triumphant from successful toils,
Of heroes slain he bears the reeking spoils,
Whole hosts may hail him with deserved acclaim
And say, this chief transcends his father's fame,
While pleased, amidst the general shouts of Troy,
His mother's conscious heart o'erflows with joy."

In the battle which follows Hector is wounded, but not so severely wounded but that he soon appears again and again, and when he appears, the Greeks are apt to be worsted. Thus Teucer attacks him, after having killed eight Trojans in succession by successful arrow-shots.

"He spoke, and sent another arrow from the string, aimed at Hector, whom he hoped to strike. But it missed him, and struck in the heart Gorythion, a brave son of Priam, whose mother was Castianira, beautiful as a goddess, who had been brought as a slave from Aesyma. And as a poppy in a garden, heavy with its fruit, and supple with the moisture of spring, bends its head upon one side, so bent his heavy head upon one side. And Teucer sent another arrow from the string, aimed at Hector whom he hoped to strike. But even then it missed him, for Apollo warded it off, and it struck Archeptolemus, the brave charioteer of Hector, as he was rushing into the fight—it struck him in the heart. He fell from the chariot, and his horses sprung backward and all his spirit and his strength were gone. And Hector mourned for his charioteer with bitter grief."

I have translated this, almost literally, for you, in the hope that some of the Dallas boys or some of the Lynchburg girls may send us a version in poetry, half as good as Mr. Sotheby's or a quarter as good as Mr. Pope's.

You can see here how Hector "turned the scale when he appeared."

As when two scales are charged with doubtful loads,
From side to side the trembling balance nods
(While some laborious matron, just and poor,
With nice exactness weighs her wooly store),
Till, poised aloft, the resting beam suspends
Each equal weight; nor this, nor that descends:
So stood the war, till Hector's matchless might
With fates prevailing, turn'd the scale of fight.
Fierce as a whirlwind up the wall he flies,
And fires his host with loud repeated cries:
Advance, ye Trojans! lend your valiant hands,
Haste to the fleet, and toss the blazing brands.
They hear, they run; and, gathering at his call,
Raise scaling engines, and ascend the wall:
Around the works a wood of glittering spears
Shoots up, and all the rising host appears.
A ponderous stone bold Hector reared to throw,
Pointed above, and rough and gross below:

The Greeks behold, they tremble, and they fly;
The shore is heaped with dead and tumult fills the sky.

Hector shows himself a fearless leader, and he has the great gift of encouraging his men. Once and again they drive the Grecians — once even to their ships — and Hector with his torch sets fire to them.

Meanwhile Achilles is sulking in his tents. But he permits Patroclus to go out against the Trojans in his armour. Here and now it must be confessed Hector is afraid, and he runs away. This is what I meant when, in my little joke, I said he learned too well how to run. But Apollo encouraged him, he returned to the fight and killed Patroclus. Thus he became the possessor of Achilles' armor. Achilles asked for the body of Patroclus, and Hector refused to surrender it. Polydamas



HECTOR AND ANDROMACHE.—FROM THE BAS-RELIEF BY THORWALDSEN.

Not two strong men the enormous weight could raise,
Such men as live in our degenerate days.
Yet this, as easy as a swain would bear
The snowy fleece, he toss'd, and shook in air:
For love upheld, and lightened of its load
The unwieldy rock, the labour of a god.
Thus arm'd, before the folded gates he came,
Of massy substance, and stupendous frame;
With iron bars and brazen hinges strong,
On lofty beams of solid timber hung:
Then, thundering through the planks with forceful sway,
Drives the sharp rock; the solid beams give way,
The folds are shatter'd; from the crackling door
Leap the resounding bars, the flying hinges roar.
Now rushing in, the furious chief appears,
Gloomy as night! and shakes two shining spears:
A dreadful gleam from his bright armour came,
And from his eyeballs flashed a living flame.
He moves a god, resistless in his course,
And seems a match for more than mortal force.
Then pouring after, through the gaping space:
A tide of Trojans flows, and fills the place,

proposes that he should retire into the city. And, for one, knowing the result, I always wished he had done so, from an eager desire to know how, in that case, the Iliad would have ended. But Hector refused. Apollo bade him decline a contest with Achilles — and when Achilles in his new armor came on the field to avenge Patroclus, Priam and Hecuba both implored their son to avoid him, and to retreat. But Hector would not obey. He awaited the Greek hero.

When, however, he saw him, in the terrors of the Vulcan-made armor, his courage failed him. Then was it that he fled three times round the walls of Troy.

As Hector sees, unusual terrors rise,
Struck by some god he fears, recedes, and flies.
He leaves the gates, he leaves the walls behind;

Achilles follows like the winged wind,
 the rapid chase they held,
 One urged by fury, one by fear impelled,

Swift was the course; no vulgar prize they play,
 No vulgar victim must reward the day,
 (Such as in races crown the speedy strife:)
 The prize contended was great Hector's life.

Thus three times round the Trojan wall they fly.
 The gazing gods lean forward from the sky;
 To whom, while eager on the chase they look,
 The sire of mortals and immortals spoke.

Every boy is indignant as he reads these stories that the heroes on each side are so heavily "handicapped," that is, that just in the crisis of things one or two gods or goddesses, no better than men or women, interfere to upset the result which might have been. In this particular issue Zeus and Athene determine that Hector must fall, and Athene even assumes the form of Deiphobus to urge him to make a stand.

He does make a stand and he dies.

"'Tis so — heaven wills it, and my hour is nigh!
 I deem'd Deiphobus had heard my call,
 But he secure lies guarded in the wall.
 A god deceived me; Pallas, 'twas thy deed,
 Death and black fate approach! 'tis I must bleed.
 No refuge now, no succour from above,
 Great Jove deserts me, and the son of Jove,
 Propitious once, and kind! Then welcome fate!
 'Tis true I perish, yet I perish great:
 Yet in a mighty deed I shall expire,
 Let future ages hear it and admire!"
 Fierce at his word his weighty sword he drew,
 And, all collected, on Achilles flew.

When all the starry train emblaze the sphere
 So shone the point of great Achilles' spear.
 In his right hand he waves the weapon round,
 Eyes the whole man, and meditates the wound;
 But the rich mail Patroclus lately wore,
 Securely cased the warrior's body o'er.
 One space at length he spies, to let in fate,
 Where 'twixt the neck and throat the jointed plate
 Gave entrance: through that penetrable part
 Furious he drove the well-directed dart:

Prone on the field the bleeding warrior lies,
 While thus triumphing stern Achilles cries:
 "At last is Hector stretch'd upon the plain,
 Who feared no vengeance for Patroclus slain:
 Then, prince! you should have fear'd, what now you feel.
 Achilles absent, was Achilles still;
 Yet a short space the great avenger staid,
 Then low in dust thy strength and glory laid.
 Peaceful he sleeps, with all our rites adorn'd
 Forever honor'd and forever mourn'd!"

I suppose that our sympathy for Hector comes mostly from our feeling that he is quite over-weighted. He is almost the only thorough fighter on the Trojan side. The Greeks play out such pieces as Agamemnon, Diomedes, the two Ajaxes, Ulysses and Achilles himself, and the poor Trojans can only offer this one Hector with any pretence that he equals them. Now we always take

the side of a person so over-matched. Then we like him because he does think of other things than blood and carnage. He can kiss his wife and play with his baby. And we like him because Achilles treated him so badly—or, as my young friend said, "because Achilles was such a hog!"

High o'er the slain the great Achilles stands,
 Begirt with heroes and surrounding bands;
 And thus aloud, while all the host attends;
 Princes and leaders! countrymen and friends!
 Is not Troy fallen already? Haste, ye powers!
 See if already their deserted towers
 Are left unmanned; or if they yet retain
 The souls of heroes, their great Hector slain.
 Meanwhile, ye sons of Greece, in triumph bring,
 The corpse of Hector, and your pæans sing.
 Be this the song, slow-moving toward the shore,
 "Hector is dead, and Ilion is no more."
 Then his fell soul a thought of vengeance bred
 (Unworthy of himself, and of the dead);
 The nervous ancles bored, his feet he bound
 With thongs inserted through the double wound:
 These fix'd up high behind the rolling wain,
 His graceful head was trail'd along the plain.
 Proud on his car the insulting victor stood,
 And bore aloft his arms, distilling blood.
 He smites the steeds; the rapid chariot flies;
 The sudden clouds of circling dust arise.
 Now lost is all that formidable air;
 The face divine, and long-descending hair,
 Purple the ground, and streak the sable sand;
 Deform'd, dishonor'd, in his native land,
 Given to the rage of an insulting throng,
 And, in his parent's sight, now dragg'd along!

Here is Priam's prayer as he begged Achilles to surrender the body.

Think, O Achilles, semblance of the gods,
 On thine own father, full of days like me,
 And trembling on the gloomy verge of life.
 Some neighbour chief, it may be, even now
 Oppresses him, and there is none at hand,
 No friend to succor him in his distress.
 Yet, doubtless, hearing that Achilles lives
 He still rejoices, hoping day by day,
 That one day he shall see the face again
 Of his own son, from distant Troy returned.
 But me no comfort cheers, whose bravest sons,
 So late the flower of Ilium, are all slain.
 When Greece came hither, I had fifty sons;
 But fiery Mars hath thinned them. — One I had,
 One, more than all my sons, the strength of Troy,
 Whom standing for his country, thou hast slain —
 Hector. His body to redeem I come
 Into Achaia's fleet, bringing myself,
 Ransom inestimable to thy tent.
 Rev'rence the gods, Achilles! recollect
 Thy father; for his sake compassion show
 To me more pitiable still, who draw
 Home to my lips (humiliation yet
 Unseen on earth,) his hand who slew my son!

And see, here, how sweetly Helen mourned for him. Of all of the heroes he was the one who had been good to her.

Oh Hector! thou wert rooted in my heart;
 No brother there had half so large a part.

Not less than twenty years are now passed o'er,
 Since first I landed on the Trojan shore,
 Since Paris lured me from my home away.
 (Would I had died before that fatal day!)
 Yet it was ne'er my fate from thee to find
 A deed ungentle, or a word unkind.
 When others cursed the authoress of their woe,

Thy pity checked my sorrows in their flow:
 If by my sisters or the queen reviled,
 (For the good king, like thee, was ever mild)
 Thy kindness still has all my grief beguil'd.
 For thee I mourn, and mourn myself in thee,
 Nor hope, nor solace now remains to me;
 Sad Helen has no friend, now thou art gone.

ENTERTAINMENTS IN CHEMISTRY.

BY HARRY W. TYLER.

I.

SOME EXPERIMENTS WITH AN INVISIBLE GAS.



MOST young people are familiar with that mildly exhilarating beverage known as soda-water. Perhaps not so many of them are aware that the cause of its foam and sparkle is not soda at all, but an invisible gas. It is with this gas that our first experiments have to do.

To begin, we will make some of it. For this we shall need a large, wide-mouthed glass jar—a two-quart fruit jar, or even a pitcher of the same size, will do—and a bottle, also wide-necked, but small enough to be lowered by a string or wire into the jar.

Besides these tools, or “apparatus,” we need materials, “chemicals.” It will be best to get a handful of marble or limestone chips, but if these are not obtainable, common soda from the grocer’s will do, or broken oyster or clam shells. Next you will get of the druggist a few ounces of hydrochloric (“muriatic”) acid, or sulphuric acid (“oil of vitriol”), if he has not the former. These you must be careful not to spill upon skin or clothes, as they will, if strong, discolor and injure them.

Now put in the bottom of the small bottle a few chips of the marble, or a tablespoonful of the soda, and two or three times as much water as will cover it. Then pour in carefully some of your acid, and lower the bottle quickly into the jar.

The water has no apparent effect upon the marble, or, if you use soda, some of this is simply dissolved. But when the acid is added the whole mixture seems to boil. The fragments of marble become covered with little bubbles, which, almost as quickly as formed, separate and rise to the surface. If the action is rapid, these bubbles are so

numerous as to make the clear liquid almost milky white, and each bubble on reaching the surface bursts and throws up a tiny spray. So much for what you see. If you touch the bottle after a time, you will also find that it has become warm.

Now we will ascertain what becomes of all these gas-bubbles, which after their escape from the liquid are invisible. After a little, lower into the outer jar a lighted match. As it approaches the bottom, it burns less brightly and soon goes out. Thus we find that our jar now contains something besides air. This invisible something, as we naturally infer, is the gas which is all the time escaping from the bottle inside. Lower lighted matches or paper into the jar at intervals, noticing at what depth each ceases to burn. Add fresh acid to the marble if the bubbling action slackens much. When the flame is extinguished at or near the top of the jar, the small bottle is lifted out, and we have our jar nearly full—as it might be full of water—of the new-made, invisible gas, which is usually called carbonic acid gas.

Now that we have made our gas, we will study it somewhat more closely, first to discover the properties or qualities which distinguish it from other gases, then to understand, as far as we can, why it has been produced in our experiment. In the first place, we recall that the gas-bubbles rose through the liquid, but sank in the air of the jar. We conclude therefore that, although lighter than the liquid, our invisible gas is heavier than air.

But we may have clearer proof. Let us take a tumbler or cup, place in the bottom a burning match or paper, then pour out some of our heavy gas from the jar into the tumbler, as we would pour out a glass of water. We do not see that anything is poured, but we do see that the burning wood or paper is extinguished, just as when lowered into the gas. Now we know that our gas is invisible, and nearly odorless, but certainly heavier than air, and that it may be distinguished from air by its action upon flame.

One more property will suffice to distinguish this

from other gases. Place in a tumbler or goblet a little clear lime-water from the druggist's. On stirring, it shows no change. Pour into the tumbler some of the gas from the jar, and repeat the stirring. The liquid quickly becomes cloudy, perhaps so much so that you cannot see through it.

Having now noted a number of facts and results of chemical action, we will look to the science of chemistry for the explanation of them. Marble, or limestone, is composed of two very dissimilar substances; one of these is lime proper ("quick-lime"); the other is carbonic acid gas. This may be proved directly by heating limestone alone till "red-hot," when the same gas escapes, and "quick-lime" remains. What is thus effected by the high heat of the lime-kiln, we have done in our little bottle by a few teaspoonfuls of muriatic acid. The lime of the marble has united with the muriatic acid, and the carbonic acid gas has been set free to bubble to the surface of the liquid. When we stirred the carbonic acid gas with lime-water, the former

combined with the lime in solution, and gave us what is chemically the same as the limestone with which we started.

The water we put in takes no direct part in the chemical action. It simply helps to bring the acid and the solid marble closer together, and to dissolve the solid matter which would otherwise remain.

This may be illustrated by a simple experiment. Mix together in a tumbler a teaspoonful each of soda, (or "saleratus") and of "cream of tartar." There is no visible action. Now add a little water. Instantly there is a violent commotion. The water is not changed, nor does it change chemically either of the two powders; it simply brings them together.

You will see, perhaps, a resemblance between this experiment and the action of muriatic acid and marble. The soda contains carbonic acid, just as the marble did; the "cream of tartar" corresponds indirectly to the acid; and the gas formed by them when heated raises much of the bread we eat.

THE MAKING OF PICTURES.

BY MRS. SARAH W. WHITMAN.

I.

THE BEGINNINGS OF ART TRAINING.



OW are pictures made? What are the processes by which they are obtained? What are those processes called? And how shall we recognize them?

All these questions are very interesting to many people. I am not sure that they are not somewhat interesting to all people; for

from the baby who watches eagerly while its mother draws a miraculous bird on its slate, to the amateur and critic who refreshes himself with the last "example of French art," the picture appeals to an innate love of pictorial representation in the human race. A picture is such a brief and charming way of telling a story! A picture may recall the past, or glorify the present, or predict the future; and all within the compass of one glance of the eye!

It has always been so; it may be safely said that it will continue to be so; while in the period in which we live, when mechanical adjustments and

scientific processes have varied the methods of obtaining pictures, and multiplied their number almost infinitely, a very large part of the education of our country is carried on by means of pictures. They are found in all directions: magazines are profusely illustrated; books and papers are full of them; the photograph, the lithograph, the engraving, are produced in enormous quantities; in short, we live in a world of pictures, and consciously, or unconsciously, we are receiving numberless impressions from them. It is these impressions which, as I have just said, educate us; for all sorts of ideas regarding men and things find their way to our minds through seeing pictures which represent what is going on in life.

Now just at this point I want to ask the forbearance of every boy and girl who is waiting impatiently to be told of the processes by which pictures are produced, while I say a few preliminary words on the subject of pictures as such.

Have you not often noticed that in seeking information the first questions are sometimes asked last? And would you not think that perhaps in this case, before we ask what is the difference between an oil-painting and a water-color, or between an etching and a wood-cut, we might reasonably inquire what a picture is, to begin with?

or whether every picture is a work of art? and, once more, what is meant by a "work of art"?

It strikes me that these are not easy questions to answer; and yet the answers lie at the very foundation of all training in the study of art: and those who are to form the "intelligent public" must be enabled to criticize pictures because they have learned to know what goes to make pictures. In other words, without knowledge there can be no criticism; and again, without knowledge there can be no intelligent enjoyment. Forgetting this, not only boys and girls, but men and women, are fond of thinking and saying that they are born with a natural power of being critics in art matters. They will tell you glibly, in the galleries and museums, that this is good, and that is bad; and when you ask "Why?" you will often find that it is because they like one, and dislike the other; thus making an amusing blunder in mistaking narrow, personal preference for broad, abstract judgment. No; in art as in morals or mathematics, if you will, there are great laws to go by; and it is very stupid and very silly not to try and understand these laws, if one intends to look at pictures and to speak of them intelligently. So let us return to our little list of questions, and ask again, "What is a picture?" A picture, by means of form and color, and light and shade, represents things or ideas, or both. But is every picture a work of art? No. What then is a work of art?

Before I answer this last question, let me use an illustration. Suppose some one were telling a story of two men hoeing in a field; suppose next, to make the story plain to the eye, some one made a drawing of two men with their hoes; this would be a picture; and any one who could draw correctly the figures of men using their hoes could make such a picture as this. Now suppose, once more, that another man drew a picture with the same subject—just the two men hoeing; but when you looked at this picture, you saw something that the story had said nothing of: you saw, perhaps, that the men looked very sad and weary, as if they had been working a long time, and as if their fathers had worked before them; or you saw that they looked brave and earnest, as if they meant to help the world along by the work they were faithfully doing; you saw, in short, that the second picture had become different from the first, and the difference lay in the fact that the man who drew the second one had not only seen two men working, and drawn them, but he had felt something about the meaning of their labor, and had expressed this feeling in his drawing also.

Now this second picture would be what is called a "work of art;" and the person who could make it would be called an artist.

Does not this give you a clue to what is said to be the mystery of art—that in some strange way one should be able to express on canvas or paper,

not only what one sees, but also what one thinks and feels about what one sees? And as you consider the matter and try to understand it, I am sure you will perceive that two things go to make artwork: nature, or the world of objects, and man, or the world of thought and feeling.

When the artist looks at nature, he sees what other people see, and he sees also what they miss, or see but dimly; and so he is enabled to interpret or reveal nature more fully to the general eye. It was said of Turner, the great English landscape painter, that he could paint a fissure in the side of a mountain so that you seemed to see and understand the whole Alpine Range; while it is true also of all renowned portrait painters that the faces they drew revealed secrets of life and character—showed what the men were, as well as how they looked.

You perceive in all this that art is no mere imitator. Imitation carried to perfection would result in complete deception; and nothing could be farther from the object of art than this, its first purpose being to add to our knowledge of truth and of beauty. A clever imitation produces sometimes a sort of cheap surprise or admiration, but it is soon found to be but a fraud at best; and not only that, but it adds nothing to our stock of knowledge, as it repeats exactly what was known before.

Say to yourselves, then, to begin with, "All good art, all fine art, will have a revelation for me," and set yourselves to find it, yes, to demand it!

I have said that it is the function of the artist to see further and to understand what he sees better than others. But this is not all; the artist must be able to express what he sees according to certain recognized laws: the laws of composition, of form, of color, of *chiaro-oscuro* (or light and shade). Simple as a picture may seem to be, the making of it involves careful and intelligent obedience to all these laws; while those who wish to enjoy and to understand pictures must know somewhat of these laws also.

The law of composition involves all that has to do with the design or purpose of the picture, and just where the object or objects shall be placed with relation to each other. Composition regulates the selection as well as the position of objects; is the guide to unity or harmony of design; is, in brief, the plan or scheme on which the picture is built. By the rules of composition, one learns not only where a picture should begin, but where it should end; how much of "suggestion" there may be in certain details, how much actual fact. As, for example, in a picture of a dog walking in a road, the road might be cut abruptly by the frame, and yet it would not hinder our understanding that the road went on; but if the dog's tail were cut off in like manner we should be in a state of distressed uncertainty as to the existence of the tail at all;

and this would be a fault in the composition or intelligent plan of the work.

The law of form follows, or indeed is almost one with that of composition. Form is the structure or verity of that which is represented; by its use the character of objects is expressed, their action, their import; and a mastery of form is essential to greatness or distinction in art.

Hand in hand with these great laws runs the law of perspective, which by the use of certain lines, and the making of certain deductions, enables the artist to give distance, space, or volume, such as we see in the outer world, on a perfectly flat surface. By perspective the artist can represent great stretches of country, miles on miles of sea or sky, within the compass of a square foot, or less; can lead the eye of the beholder along from point to point till what is called the "vanishing period" is reached, just as it would be in nature if we were looking across the face of the earth. The law by which this is done is simple and exact; the means of illustration are complicated, and almost infinite in variety.

Light and shade also play great part in the essential elements of a picture. Out of doors the adjustment of light is, to begin with, simple; because there is but one sun and inevitably light proceeds from that one direction. But as every object upon which the sun shines becomes in its turn a reflector, there are vastly many side-lights and cross-lights, all of which have to be studied and understood. By skilful handling of light and shade many of the most fascinating results in pictures are obtained, brilliant contrasts, picturesque effects, and a thou-

sand charming variations of the same objects. If you accustom yourself to look for these effects in art or in nature, you will soon begin to comprehend their meaning and their scope; and through an understanding of light and shade you will more readily learn to enter upon the study of color.

Does it sound very strange to you that I speak of color as something difficult and remote? We know, to be sure, that even little children and very ignorant people are said to love color; and this I do not dispute. But I want you to try and see what color really is. Scientifically, you will have learned that all combinations proceed from the triple ray—red, yellow, blue; but in art there are other and profounder laws. Remember how little we discriminate in our use of words, so far as color is concerned. We say red lips and red sealing-wax. Put a stick of sealing-wax at your lips, and see if they look alike. Lay a green leaf on a bit of green ribbon, and note the difference. Think of the meaning of colors also; in short, begin at once to wonder a little over this most subtle law in art, the law of color. Ask yourself and ask others questions regarding it; so you may some day get answers which will surprise and delight you.

Now comes the end of my chapter. There are only hints in it, for I have not attempted to make a complete statement. What I have told you is, I think, so far as it goes, true; but there is endless truth to be added to it. What every boy and girl can do is to take the first step toward careful training in art; and, treading with love, reverence and patience in her broad fields, learn to wander freely there, and find exhaustless treasure.

SEARCH-QUESTIONS IN AMERICAN LITERATURE.

BY OSCAR FAY ADAMS.

I.

LITERARY NAMES AND NICKNAMES.

1. To what author has been applied the title, "The American Goldsmith"?
2. Who was called "The Learned Blacksmith"?
3. What writer was styled "The Apostle to the Indians"?
4. What three persons have sometimes been called, respectively, "The Sage of Auburn," "The Sage of Monticello" and "The Sage of Concord"?
5. Who is "The Amesbury Bard"?
6. What writer was called by Southey, "Maria del Occidente"?
7. What author is often called "The Autocrat"?
8. What author has sometimes been called "The Hermit of Walden"?
9. What poet has been called "An Oregon Byron"?
10. Who was called "The Bard of Hasty Pudding"?
11. What author is sometimes called "The Rogers of America" and "The Banker Poet"?
12. What author, as well known in art as in literature, was in his lifetime frequently called "The Poet Painter"?
13. What political writer was known as "The Pennsylvania Farmer"?

14. What prominent writer of magazine literature is sometimes called "The American Charles Lamb"?

15. What writer was designated on the title page of her book as "The Tenth Muse lately sprung up in America"?

16. What living writer has been called "The Poetic Voice of Ohio"?

NOTE.—For Prize Offer in connection with this series, see Supp^{ts} Page.

17. What writer has been named "The American Blackstone"?

18. What three humorists are known, respectively, as "Mrs. Partington," "Hosea Bigelow" and "Mark Twain"?

19. Who was called "The Rail Splitter"?

20. What writer is known as "The Funny Man of the *New York Times*"?

DAYS AND NIGHTS IN THE TROPICS.

BY FELIX L. OSWALD.

CHAPTER XI. (*Continued.*)

THE HACIENDA DEL MONTE.

NOW watch them," said the Mayoral, and threw a pineapple into the picnic-party. The one who caught it at once took to his heels, followed by three or four of his elder relatives, who seemed to claim a prior right to such tidbits. We then stepped behind a tree, and, before the pineapple party had settled their dispute, a dozen wood-monkeys scaled the fence and made a rush for the corn. Of the rightful guests only a few youngsters were present at that moment, but their squeals soon brought their parents to the rescue. The moment they caught sight of the marauders they dropped the pineapple and charged up the hill like a pack of bull-dogs—a little too late, it seemed, for, seeing them come, the thieves made a rush for the fence, but before they could get across the household troops overtook them and jerked their tails with an energy of virtuous wrath that filled the air with screams and flying hair.

"Well done!" laughed the Captain; "but what cowards those bush monkeys must be! Why, they are three to one against your tame ones!"

"Yes," said the Mayoral, "and out in the bush they would tear them to pieces, but in here they know that a general engagement would bring up the allies of their opponents. A hunter can notice the same thing every day. Even a bear will run away from a small terrier, though he could crush him as easily as the dog would kill a rat—but he knows that the dog's friends are not to be trifled with."

The domestics of the Hacienda, in the meanwhile, seemed to have subdued the baldhead, for as soon as we returned to the house we were ushered into the dining-hall where Doña Rita introduced us to some of her special favorites. "These are our bush-babies," said she, pointing to a couple

of young capuchin monkeys who had been dressed up like dolls and looked like young demons in petticoats. "And here is their cousin" (a slit-eared sinner with white rings around his eyes); "we call him the 'Parson,' on account of his white spectacles. He sleeps with the kitchen-boy, and I am going to give him a good education."



"THESE ARE OUR BUSH-BABIES," SAID DOÑA RITA.

While she introduced him the "Parson" slipped his hand into her pocket, drew out a white handkerchief and crammed it into his cheek-pouches.

She never missed it till she saw the corner of it sticking out of his jaws. "Oh, you wretch," said she, catching the culprit by the ears, "what did I tell you yesterday? and the week before last? This is the third time I catch you at the same trick. I've warned you often enough. I have to give you a

black mark now. I keep a conduct-book," explained the old lady, "and whenever they misbehave I put a black mark against their names. If any one of them has more than ten marks a week, he has to go without his Sunday dinner."

(TO BE CONTINUED.)

ALL THE WORLD ROUND.

[Questions concerning China and the less-known countries will be answered in this department by Mr. Yan Phou Lee and his assistants. Address all inquiries to Mr. Yan Phou Lee, Yale College, New Haven, Conn.]

[Among the questions asked me by American young people whom I have met personally, the following have been put so often, that I repeat my answers here for the information of others curious about my native land. Y. P. L.]

"Do boys and girls have vacations and holidays in China?" They have, but not so many as children in America. In the first place, they have no Sundays, no Saturdays. Indeed, the days of the week are not known at all. Schools, in China, open about the middle of the first month, corresponding with your January, and close about the middle of the twelfth month. Thus, about New Year's, the Chinese children have a whole month of vacation. They do not have so long a summer vacation as you enjoy. Should their teachers be candidates for literary degrees, and therefore go to the provincial capital to pass examinations, then they may have about a month of summer vacation, otherwise not. But they have several yearly holidays; the principal ones are the fifth day of the fifth moon or month, the fifteenth day of the eighth moon, which is the harvest festival, and the ninth of the ninth moon. These days are celebrated all over the empire. Then there are numerous local fêtes during which some teachers grant a holiday or two. However, attendance at school is not very strict. It all depends on the teacher whether one is to have many holidays or not. A conscientious teacher would feel himself bound to teach as much as possible and make each of his pupils work as hard as himself. On the other hand, a lazy teacher makes lazy pupils. Boys and girls in America average about two hundred days in school, and boys and girls in China average about three hundred.

"What are edible birds'-nests?" They are the nests of a species of swallows in the East Indies, and the eatable portion is the gelatinous substance with which the bird sticks together its building materials. When brought to China this gelatine is still mixed with the material of the nests; hence the name. Much labor and care are required to separate the edible, or eatable part, from the straws and feathers and twigs that form the nest. After

it is picked and assorted, the best will fetch as high as ten dollars a pound. It is tasteless, but considered by the Chinese very nutritious. The price being so high, few can afford it for ordinary food. But no feast is complete without it. It is often given to invalids, as people in this country give beef-tea. It is not, to be sure, delicious, but it certainly is not repulsive or disgusting, as the name would imply. I have often eaten it myself when made into a soup with small pieces of ham to give it seasoning.

"Have you railroads in China?" No, and yes. There is none in China proper — that is, on the mainland; but there is one on the island of Formosa. This line is ten miles long. Its history is quite interesting. A few years ago certain foreigners in Shanghai obtained from the Chinese officials permission to build a horse-car line from the foreign settlement of Shanghai to a place ten miles distant, called Woosing, where the Woosing river empties into the Yangtze-kiang. But instead of that they took advantage of the mandarins and built a real steam-car railroad, and soon the whole Chinese community were astonished at the sight of the iron horse puffing away and running at a rate they had not considered possible. The mandarins at first were paralyzed by this fresh exhibition of audacity on the part of the "red-haired" English. But they determined to bide their time and watch their opportunity. The line, meanwhile, prospered. It was a novelty, and many natives patronized it. But it was doomed to have only a brief career, in that part of the country at least, for the mandarins had resolved on its destruction. At last a native was killed, run over by the train. The mandarins, together with an infuriated populace, demanded its surrender. But it belonged to a stock company who had expended money on it and who now refused to give it up. Finally the mandarins bought it; and the company got three times the amount that they had laid out. The rails were at once pulled up and every bit of this detested railroad was transported to the island of Formosa where it is growing rusty and useless. Such is the fate of the first railroad ever built in China.



THE CHILDREN OF WESTMINSTER ABBEY.

BY ROSE G. KINGSLEY.

II.

THE CONQUEST OF WALES — PRINCE ALFONZO.

IN our first stroll about Westminster Abbey, we saw its gray walls towering up in the midst of noisy, hurrying London. We stood in the Sacramentum and looked at the foundations of Edward the Confessor's great Norman Church. We learned how Henry the Third built the new and noble Abbey which is standing at this day. We saw how he crowned his long and troubled reign by the translation of the Confessor's body to the gorgeous shrine he had prepared for it. Let us now, standing for a moment beside this shrine, talk of a little boy whose memory is closely bound up with an important event in the history of Great Britain.

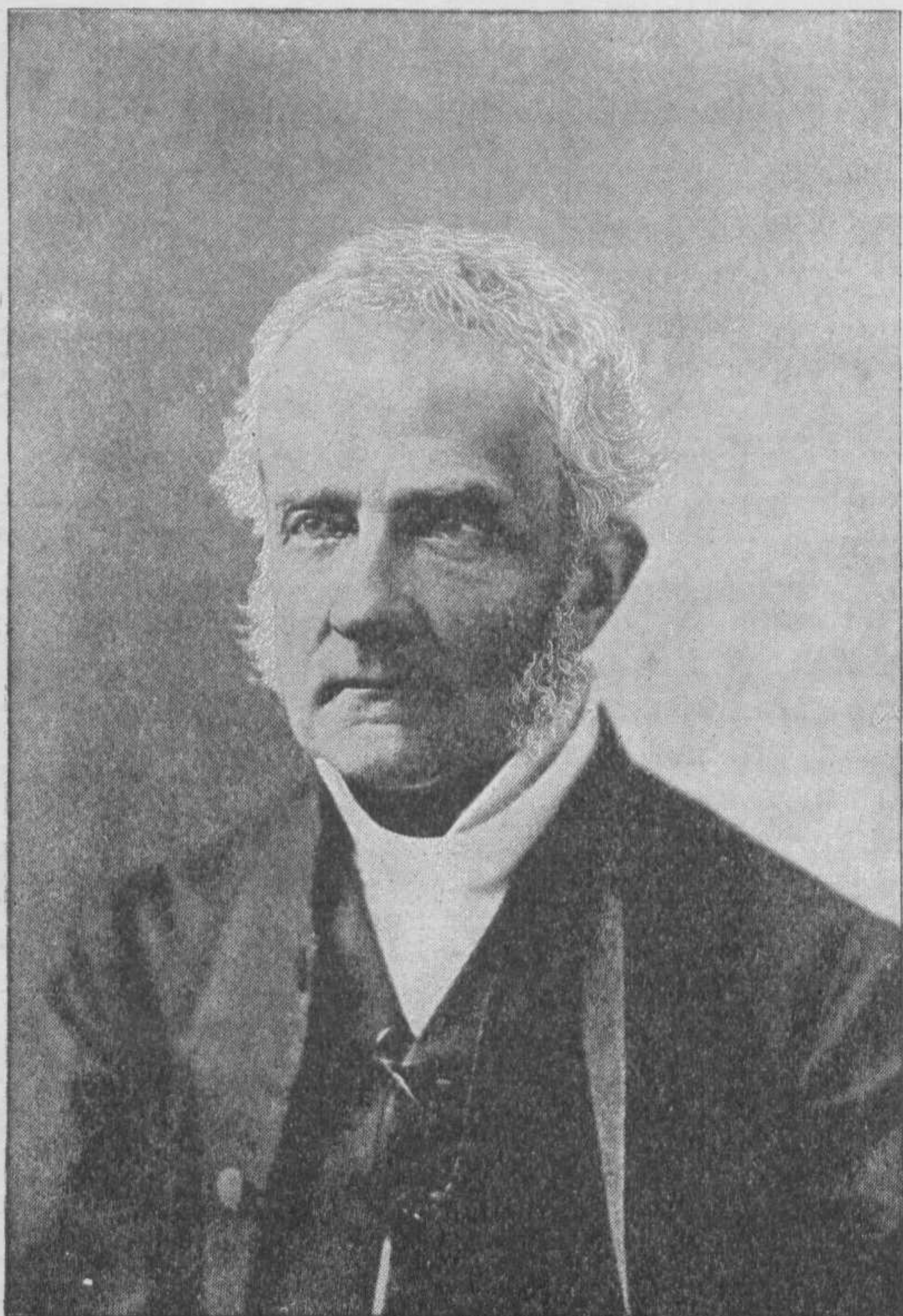
Yet first, for the sake of those who have not been to Westminster, I will try to explain the general plan of the eastern end of the Abbey. Imagine a narrow horseshoe of which the points are straight instead of being bent inwards. The space inside the horseshoe represents Edward the Confessor's Chapel; the shoe itself the ambulatory, a wide passage where the monks used to walk, and processions passed round to the shrine; and outside this passage are built, on the south the chapels of St. Edmund, and St. Nicholas; on the north the chapels of St. Paul and St. John the Baptist; while on the east of the horseshoe curve are the steps up to Henry the Seventh's Chapel. These chapels all lie behind the grand screen that runs right across the choir at the back of the altar, and are not used for service any longer, with the exception of Henry the Seventh's. All the congregation sit in the choir in front of the altar rails, and in the north and south transepts, which spread out right and left from the choir like two broad arms of a cross.

I know few more overpowering sights than the vast Sunday congregation of between three and four thousand people. The Sacramentum black with men. The wide altar steps closely packed with people who have often been waiting for more than an hour outside the doors to secure a good place.

Men and women and children wedged together in the densely crowded transepts, standing willingly throughout the long service because there is not a seat left. The privileged few coming in by the comparatively empty nave from the cloisters, and taking their places in the stalls or in the seats of those connected with the Abbey; well-known faces among them there are — princes and statesmen, and men of letters and foreigners of note. Then the hush as the clock strikes three in Poets' Corner, and a faint harmonious "amen" is sung in the distant Baptistery by the choir, at the end of the prayer which is always said before they come in to service. The organ plays softly, so softly that you hear the echoing tramp of the long procession now winding up the nave. Six or eight pensioners, old soldiers in quaint blue cloth gowns and silver badges, enter and take their places. And as the white-surpliced boys appear in the black shadow of the gateway under the organ screen, the whole three thousand people rise quietly to their feet and stand. Then come the boys of Westminster School with their masters, and take their places right and left. Then the little chorister boys, walking two and two, the smallest in front — little mites who look as if they would hardly know their letters, but who march gravely to their seats, and sing the long service like sweet-voiced little birds. Then the "singing gentlemen of Westminster Abbey," as the men in the choir are called — many of them well-known professionals, whose names are seen during the week at the best concerts in England. Then come the clergy; the minor Canons who intone the service; next to them the Canon in residence, who, during his two months at Westminster, is present at every service weekday and Sunday. And last of all the Dean.

After the Dean has gone into his stall on the right of the entrance, the service begins. The monotone of the prayers breaks into rich harmonies now and again at the responses — the organ re-echoes through the arches and pillars with thundering of the pedals, and wild, pathetic reed-notes. The splendid voices of the choir fill the building from end to end in the Psalms and canticles, or a

boy's voice, singing a solo verse, floats up quivering and throbbing like a nightingale's song in a still wood at evening. And then — but I am speaking of "the days that are no more" — a small fig-



DEAN STANLEY.

ure — unutterably dignified, with a pale, refined, determined face — in his white robes, his scarlet Doctor of Divinity's hood, and the crimson ribbon of the Order of the Bath with its golden jewel round his neck — followed the black-robed verger who carried a silver mace, up from the stalls, through the two walls of human beings, to the marble pulpit just outside the altar rails. And every face turned with eager expectation towards the bowed head, and hung breathless on the burning words that rang like a clarion through the great church, for it was Arthur Stanley, Dean of Westminster, who was preaching.

But we are lingering in the choir, full, to us who know and love it, of such keen present interest. I must take you back into the Confessor's Chapel and the remote past.

We go through the iron gates that shut off the chapels from the choir, and climb the steps out of the ambulatory, for the Confessor's Chapel is raised several feet above the pavement of the Abbey. It lies, as I have said, directly behind the altar, only

divided from it by the splendid screen which was erected early in the fifteenth century. In the centre rises the Confessor's shrine, the remains of the mosaics with which it was encrusted showing what its splendor must have been. The mosaic pavement of 1260 is under our feet. Henry the Fifth's shield and helmet hang aloft on a bar above his chantry. All round us are the splendid monuments of the kings. Richard the Second, Edward the Third and Queen Phillipa, Henry the Fifth under his beautiful chantry, Henry the Third in his gorgeous tomb inlaid with marbles and mosaic, Good Queen Eleanor, and her husband Edward the First — they all are there! "The greatest of the Plantagenets," as he has been called, lies beneath an enormous monument of solid gray stone, absolutely plain, without carving, brass or mosaic. Only his gigantic two-handed sword lies upon it, and along it runs this inscription:

*"Edwardus Primus Scotorum malleus hic est, 1308 Pactum Serva."**

It is of Edward the First's reign we are to talk. For besides being the Hammer of the Scots, he conquered the last stronghold of the British race, and made their land forever a part of England.

For four hundred years Wales had been a thorn in the sides of the Saxon kings, a thorn in the sides of the Norman Conquerors and their descendants. The Britons, driven westward by the all-conquering Anglo-Saxons, had taken refuge in the fastnesses of that wild and mountainous region. There they had lived, "a mass of savage herdsmen, clad in the skins and fed by the milk of the cattle they tended, faithless, greedy, and revengeful."† Every fresh earldom which the English had wrested from them, often with barbarous injustice and cruelty, had been the signal for some equally barbarous reprisal. The history of the border countries is one perpetual record of raids and fightings, of lands laid waste with fire and sword, flocks and herds driven off, women and children carried into captivity.

But in Henry the Second's reign, just as the British race seemed sinking deeper and deeper into barbarism, a strange revival of patriotism had taken place. The Bards of Britain, for centuries silent, suddenly burst into song again. The praise of every British hero, the glory of every fight, was sung throughout the land, and the sound of the harp heard in every house. These singers of freedom chanted of joy in battle, of their country's liberty, of hatred of the Saxon oppressor. And they sang of their great prince, Llewellyn, "towering above the rest of men with his long red lance, his red helmet of battle crested with a fierce wolf; tender-hearted, wise, witty, ingenious." Wales, stirred by their trumpet calls, had soon burst aflame to drive the Saxon from the land.

* Edward the First, Hammer of the Scots, is here. Keep the Pact.

† "Green's Short History of the English People," p. 155.

With a succession of victories for the Welsh prince, Llewellyn—the Lord of Snowdon—the hopes of his people had risen high. The dissensions of Henry the Third's reign had strengthened their hands. Llewellyn the younger, no longer calling himself Lord of Snowdon, but "Prince of Wales," had made himself sovereign of all the Welsh chieftains, and also had allied himself with Simon de Montfort during the great earl's revolt against the king.

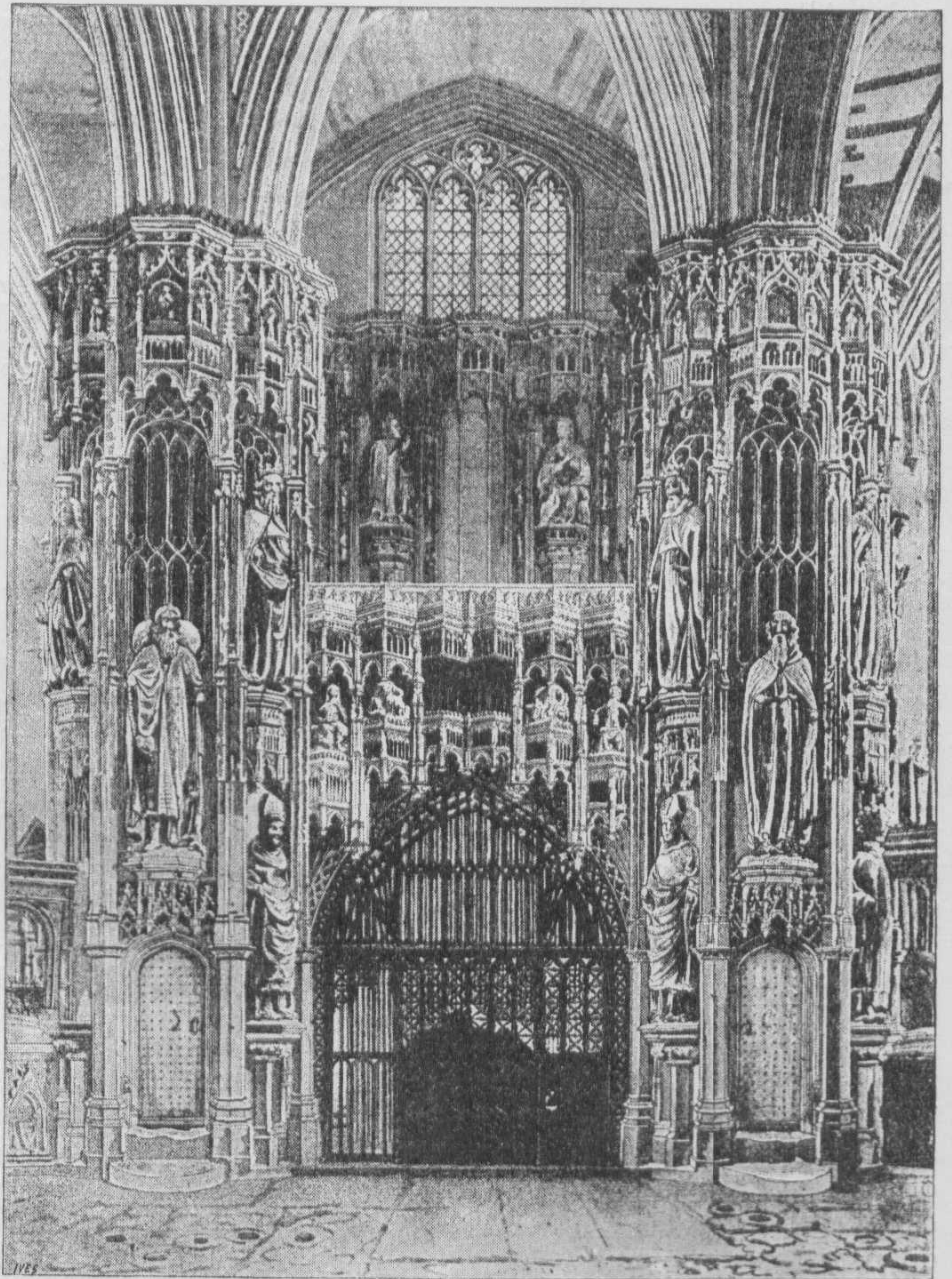
But now in the very moment of Llewellyn's triumph, the accession of Edward the First to the English throne revived all the old questions of homage to the sovereign. Llewellyn and the King of Scotland were both summoned as vassals of the crown to Edward's coronation—the first that took place in Westminster Abbey as we know it. The King of Scotland came. But the "Prince of Wales" was absent. He did not dispute Edward's right to claim his homage: but excused himself on account of the dangers he would run on a journey to London, by reason of the enmity that existed between him and some of the lords marchers. Six times in two years was he summoned. And to none of these appeals did he vouchsafe the slightest attention.

Edward was a wise and politic prince; and he saw of course from the very beginning that the union of England and Wales would be a boon to both countries, and that it must inevitably come about sooner or later. But though some historians have accused him in this matter of grasping ambition, and greedy haste to seize on the principality, the records seem to show that he exercised most uncommon patience with his turbulent and troublesome neighbor, wishing rather to make him his loyal vassal and friend than to wrest his territory from him.

In 1276, in reply to the sixth summons Llewellyn sent letters demanding his bride, Eleanor de Montfort, Earl Simon's daughter, and cousin of the king, who had been taken prisoner the year before on her way from France to join Llewellyn to whom she had been married by proxy. He further said that he would do homage at Oswestry or Montgomery, "provided a safe conduct were sent him guaranteed by the archbishop and the archdeacon, by the Bishop of Winchester, and by the earls of Warrenne and Gloucester, Lincoln and Norfolk"—thereby implying that the king's word was not sufficient.

This insolence raised a universal feeling of an-

ger. The king's patience was exhausted. "The Parliament at once declared Llewellyn contumacious," and the "military tenants" of the crown were ordered to assemble in the following midsummer at Worcester, to march into Wales. Six months seem in these days rather a long pause after declaring war. But this gives one a notion of the slowness of communication, and the difficulties of travel and transport in the Middle Ages. It now takes but three weeks or so to equip a whole army, and send it over seas in transports that can be had at a moment's notice. But in the thirteenth century it was all that Edward, one of the first generals and greatest politicians of his age, could do to prepare a little fleet at the Cinque Ports, and to gather his land forces by the appointed time. When once, however, he found himself face to face with the enemy,



CHAPEL OF HENRY THE FIFTH.

"the fabric of Welsh greatness fell at a blow." The southern chiefs speedily submitted. Llewellyn's brothers, David and Roderick, joined the king, and were honorably received by him. The fleet attacked

Anglesea by sea, and the "Prince of Wales," finding himself hemmed in on every side in the wilds of Snowdon, threw himself upon the royal mercy.

Edward now gave full proof of his natural generosity and clemency. A treaty was signed in which Llewellyn consented to pay the king a tribute of one thousand marks a year for the Isle of Anglesea; to pay fifty thousand pounds for the cost of the war; and to give ten hostages for the fulfilment of these engagements. The very next day, Edward, who had made peace the moment the Welsh Prince desired it, remitted the fine of fifty thousand pounds and soon after gave up the tribute for Anglesea and restored the hostages. He then invited Llewellyn to spend Christmas at Westminster; and in the following summer prepared a princely wedding at Worcester for him and Eleanor de Montfort.

For four years the Welsh troubles seemed at an end. All was apparently peace and content. But "a prophecy of Merlin had announced that when English money became round, the Prince of Wales should be crowned at London, and a new coinage of copper money, coupled with the prohibition to break the silver penny into halves and quarters, as had been usual, was supposed to have fulfilled the prediction."* Upon such slight matters do the fate of nations hang. The hopes of the misguided Welsh were again excited; and in 1282, Llewellyn's brother David — who had been heaped with favors by Edward, given an English earldom, and married to the Earl of Derby's daughter — suddenly broke into open rebellion. On Palm Sunday he surprised the garrison of Hawarden Castle — now well known as the residence of Mr. Gladstone, the English Premier. He hurried Lord Roger de Clifford the governor, wounded and in chains, over the mountains, while he himself and Llewellyn, who never before agreed, were now reconciled, and together overran the marches with fire and sword.

Even now Edward strove to come to terms before taking up arms. He allowed the archbishop to go to Llewellyn as a mediator. It was of no use. So in the summer of 1283 he collected his forces and once more entered Wales.

In the campaign which followed, the sufferings of the English were terrible. Llewellyn held out in Snowdon with the determination of despair. An English detachment was cut to pieces at the Menai Straits; and the war was prolonged into the winter. The undaunted king, however, rejected all proposals of retreat; and gave orders for the foundation of a new army at Caermarthen to complete the circle of investment. This proved needless. Llewellyn, fearing probably to be shut up and starved out in his fastness, left Snowdon and passed into Radnorshire. Here he fell in with a party of English under the command of Edward Mortimer and John Gifford; and in a skirmish at Builth on the banks of the Wye he was killed by Adam Frank-

ton, an English soldier, who did not even know who he was. But the body of the dead man, lying in the little hollow among the broom beside the spring, was recognized by some of the leaders. His head was cut off and sent to the king. Then, crowned with ivy, it was set up over the gate of the tower of London. Thus was Merlin's prophecy fulfilled. The "Prince of Wales" was indeed crowned at London.

David of Snowdon held out in the wilds of the mountains for a few months, and at last was arrested and sentenced to a traitor's death.

With Llewellyn's death Wales became and has remained ever since, part of the kingdom of England. English laws were established, and the barbarous Welsh laws abolished. The country was divided into shires and hundreds on the English model.

While the king was still engaged in quieting down his new principality, his eldest son Prince Alfonzo, named after his grandfather Alfonzo of Castile, came journeying back to London. He brought with him Llewellyn's golden crown, said by tradition to have belonged to King Arthur, also jewels and ornaments, and possibly the precious Crois Gneyth (or Cross of St. Neot) which certainly was brought to the Abbey from Wales during Edward the First's reign.

The little lad who was twelve years old, came with these treasures to Westminster; and he offered up Llewellyn's crown and the jewels in the Confessor's Chapel; where "they were all applied to adorn the tomb of the blessed King Edward."* We can fancy the boy, dressed after the fashion of those days, in chain armour from head to foot with a long flowing cloak, wending his way up the solemn Abbey with his offerings accompanied by a great train of knights and nobles, and gravely hanging up the crown in the Sanctuary of the English Kings.

There is indeed something to touch one's imagination in this act—the hand of the innocent boy putting the finishing stroke to the great struggle between the British and Anglo-Saxon races. Henceforth they were to be one. The proudest title of the heir to the English throne was to be "Prince of Wales." The Plantagenets were to reign over Arthur's mysterious realm, till two hundred years later Arthur and Llewellyn's descendants, the Tudors, should sit on the throne of England.

But Alfonzo's short life was nearly at an end. Matthew of Westminster goes on to say: "This Alfonzo died this year, being about twelve years of age — dying on the nineteenth of August, on the day of St. Magnus the king, and his body was honorably buried in the Church of Westminster, near the tomb of St. Edward, where it is placed between his brothers and sisters, who were buried before him in the same place," probably just where a stone step now leads up to the tomb of Henry the Fifth.

Young Alfonzo, the bearer of the trophies of the

* Green, p. 162.

* "Matthew of Westminster."

conquest, sleeps peacefully enough here at our feet, while we tell his part in the growth of England. But what memorial remains in the nineteenth century of the last hero of the Britons — the "Eagle of men"—the "Devastator of England." The Golden Crown that Alfonzo hung up disappeared from the Abbey at the Reformation, when sacrilegious robbers broke in and carried off the silver head

from Henry the Fifth's monument, and many another treasure. At Builth a modern house is built over the "Lord of Snowdon's" grave. While at the "Llewellyn Arms," a little inn close to the spot where he fell, some local artist has made a rough copy of the well-known picture of Napoleon crossing the Alps do duty on the signboard as a portrait of Llewellyn ap Gruffyd.

SOUVENIRS OF MY TIME.

BY MRS. JESSIE BENTON FREMONT.

II.

A VIRGINIA WEDDING.



NE spring we left Washington early to go into Virginia for a marriage that was to assemble the family connection. In the heart of the Blue Ridge near the Natural Bridge, is the picturesque mountain town of Lexington; beautiful from its scenery and refined by being a centre of education. Here

is the university endowed by Washington, known of late as the "Washington and Lee University," the "Anne Smith Academy," founded and endowed at the same early date by a lady of wealth, and where came the daughters of good families with their waiting maids and riding horses, where they learned a little Latin, and much Italian, including the compact, clear Italian handwriting, and impossible French. This with much English history and poetry, the care of their complexions and hands, and a disproportionate amount of society, seemed to constitute the course. From which they came out none the worse to be admirable mothers and managers of large households, and ready for all the serious work of life.

There also was the State Military Institute, of which for a long while Stonewall Jackson was head. These, with the many buildings for residency of Presidents, Professors, etc., etc., crowned the long ridge of College Hill, back of which was the massive height of the level-topped House Mountain. Here the Blue Ridge encircles the hilly valley in which lies the town. Country houses were on all the detached hills. The most simple drive required wheels to be locked and a "baulking-horse" was counted on; it was all lovely to look at, but dan-

gerous to drive about, and places were too far apart for walking. But there was much and very pleasant society, for this centre of education had attracted men of cultivated tastes. The original settlement had been largely Scotch, which was a benefit in various ways; for learning, for upright, pugnacious principle, for real hospitality — and for that good cookery which Scotland owed to its friendly alliance with France.

In colonial times the English government paid but little money to the younger officers, giving them instead "military grants of wild lands." My grandfather, "the old colonel," had in this way inherited from his father, a lieutenant-colonel in a Scotch regiment, not only the great estate near Lexington where he was born and died, but "wild lands" in the West, some of which he exchanged for bodies of grazing lands near him in Virginia. One tract so exchanged is the southern portion of the city of Cincinnati.

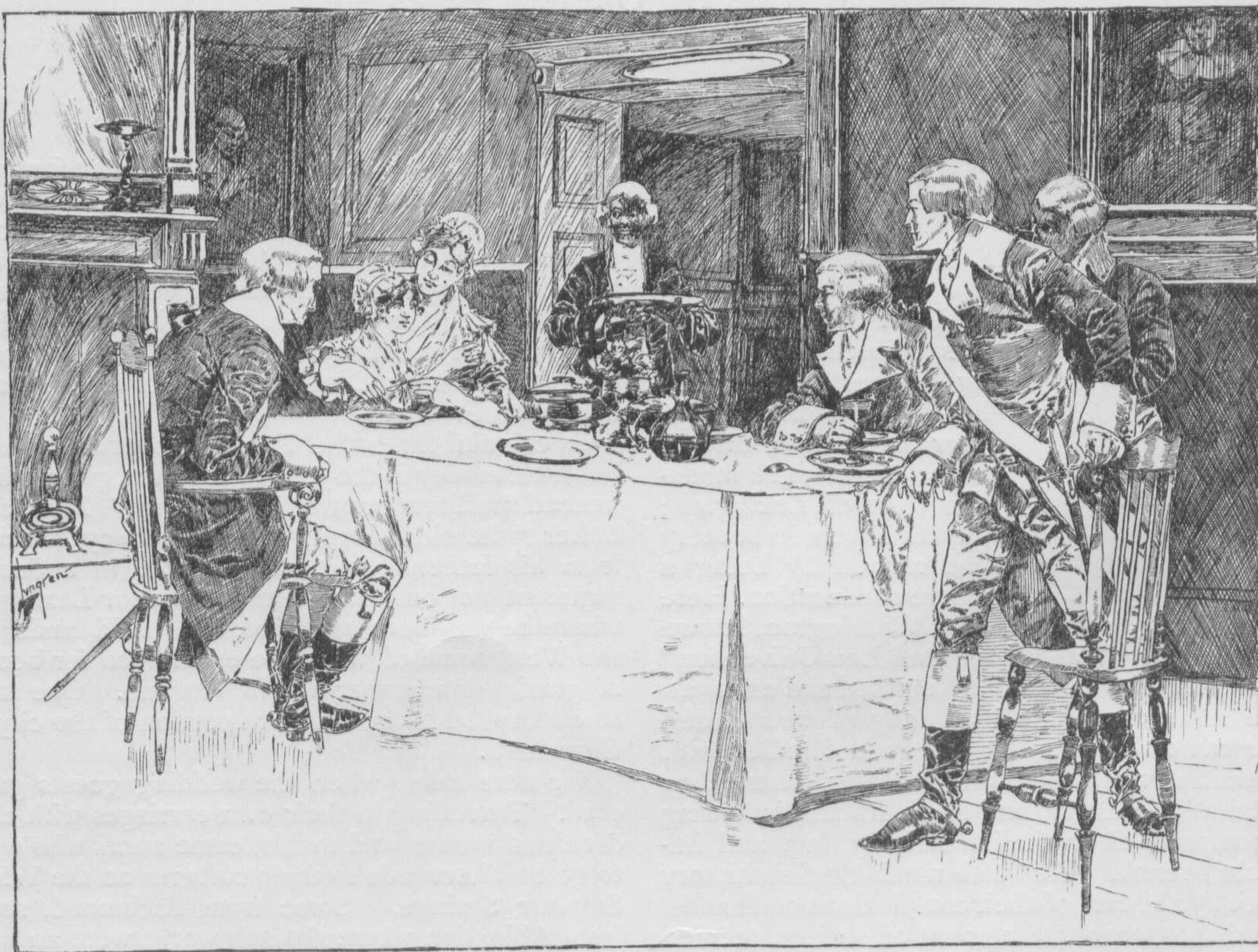
We were many when the wedding guests gathered. Travelling in their own carriages with children and nurses and maids, came aunts who were to go on afterwards to their cottages at the White Sulphur Springs. Some from Richmond, some from Abingdon where the salt works were an item of family properties; a delicate girl and her watchful anxious brother, represented our "family Mecca" at Smithfield where their English habits were still maintained; where on the death of the head of the family the widow at once moved into the Dower-House, a separate but communicating complete establishment, leaving the chief house to the elder son. The brother now here was afterwards Secretary of the Navy under Mr. Buchanan; later not only themselves, but noble old properties were given by these families to their "cause." From his church in Baltimore came the fiery, eloquent Robert Breckenridge; himself a near kinsman, but still more closely connected by marriage; a man of spontaneous wit and freshness. The aunt from Richmond

was his equal in mind, and justified her descent from Patrick Henry, while my Uncle McDowell was held to be the most graceful scholar in Virginia. They were all very handsome also and attached great value to looks. We young ones were put through the ordeal of examination, comparison and criticism at family meetings — quite as though we were models and had no sensitiveness our elders should respect. All the consideration then was from the young to the old: *nous avons changé tout cela*.

I was thought very like a favorite cousin whose husband as well as herself died young, leaving two orphan children. In this very healthy, very pros-

Although we were so many that at morning prayers we did overflow from the library into the hall, yet I remember only the usual quiet order and and large completeness of living. Nothing betrayed trouble or even preparation. All that went on unseen to the guests to whom was paid the compliment that they gave only pleasure by their presence. A woman who would let escape any fact of fatigue or disturbance would have been seriously talked against, both for want of capacity and lack of good breeding.

When my aunt made her morning visit to the large rooms devoted to store-room and housekeep-



THE HOSTESS ASSURES THE ENGLISH OFFICERS NO HARM WILL COME TO THEM.

perous, very handsome connection, sorrow or death seemed to need apology. There was clearly apology, as well as tenderness, in the "poor Eliza" and "poor Charles." I was used to these comments and hardened to their invariable "her nose is not nearly so delicate as poor Eliza's," but they were shared now by her son — a charming lad of eighteen, in all the enjoyment and importance of his first vacation from West Point. We *were* singularly alike, but we grew tired of being stood side by side and freshly commented on by more cousins and more friends who kept up perpetual visiting.

ing she remained longer than usual in consultation with her right hand, "aunt Melinda," a grave capable mulatto woman. All that was taken from the many barrels and boxes was entered in a book, and the provisioning of this family garrison planned well ahead with the forethought and exactness of a military establishment. It was really good housekeeping. There was a large working force under well-drilled servants, and in Virginia this management of a household was as much a branch of education as it had been in England in Addison's time. And there was all the old-time profusion too.

It was not the custom in those days to travel away immediately after the wedding ceremony. The marriage took place in the bride's own home with only her own people and nearest friends present, and in her own home she remained while family friends did honor to her in her new dignity at their welcoming homes. It was quite a point that something made by the hands of near friends should enter into the bride's new fittings — these were marvels of delicate needlework. I know of a Southern girl, orphaned and impoverished by the war, who, living in New York, received from Mobile on the eve of her marriage a box containing everything she should wear on that occasion: fine linens and cambrics and muslins and lace, all the gift and handiwork of old servants — slaves — who had their feeling that their young mistress must not be married in "paid-for" sewing. And the girl had the sweetness to wear the toilette so kindly sent although good friends had provided the usual outfit.

Another customary attention was a delicate and decorated "bride-cake." Until I was among Chinese cooks on the Pacific Coast I never saw anything to surpass these in patient, skilful ornamentation. One came bedded in a great wreath of ivy and geranium leaves, made of the candied rind of watermelon, most artistically cut. This was from a lady who to-day would be called an æsthete (there is nothing new under the sun only changes of name); all her arrangements were most fanciful, exquisite and dainty.

The whole countryside "entertained" the bride. Evening parties or dinners, where numbers did not seem to tell. All was dignified and orderly and most hospitable. We must have been more than thirty at one place — one of the oldest and most stately of the neighborhood; for the married daughters were visiting their home — beautiful "dashing" women with the added brilliancy of a larger outside life. The general tone of the neighborhood was staid and scholarly, and being so largely Scotch, presbyterianly serious. Great decorum and reverence of manner prevailed in the one church, which stood in the midst of its large graveyard. At one end of this were sheds and hitching posts, and the horse-blocks on which pretty girls lingered as they unpinned the plaid cloaks that answered for riding-skirts, and shook out their fresh dresses, while steady old horses were having lifted down from them the children before and the boy behind who wedged in the mother on the saddle. There were country carryalls, and fine carriages (of any date) from London, and some few stylish modern equipages. All came in good time to settle down before the bell ceased tolling and before "the minister" appeared.

But often after that would come a dash and clatter and the four-horse barouche of old Colonel Bowyer would swing up to the side entrance, the

beautiful daughters come smiling in to their double side pew the young men following in fair-top boots and whip in hand, while their dogs crouched, close as they dared, on the sunny doorstep. What healthily beautiful women these were! A high-necked dress was not known until about 1840. All dresses were cut low and supplemented by capes. This family was just then wearing mourning and the dazzling white of their throats and the tips of shoulders if (?) the black gauze cape slipped was something to see. They had too much vitality and the newer ways were too congenial for them to remain up to the highest standard of dignity, but they had enough, and their mother was its very model.

Theirs was a stately place with beautifully adorned grounds. The long avenue opened on lawn and gardens bordered with squared old box hedges, so thick and high that a man on horseback passing them could only be seen from the waist up. The house was in the fashion of Arlington, with the pillared portico and wings, where the great drawing and dining-rooms were either side of the lofty spacious hall.

The size of their great dining-room made us seem an ordinary party though we were very many at the dinner there. One of the married daughters noticed fleeting expressions of pain on her mother's face, and at last sent her a message by one of the servants to ask if she was not well, and should she not take her place? which was frowned down. But though the flushes of color and twitches of muscles returned at times, no one was to notice through the whole beautiful and delicate dinner.

When the dessert came on a centre piece of entirely white flowers had the topmost decoration taken off to make way for a special bride-cake to be cut by the bride before whom it was placed. Before putting on the dessert the upper cloth was removed leaving another of entirely fresh damask; then followed many delightful sweet dishes (the cadet telegraphed us his satisfaction in these as he improved the occasion). Finally all was removed, showing the pride and care of the dining-room — the polished dark mahogany table; the twisted silver candlesticks, the exquisite old cut glass and fine silver and crystal stands for fruits and flowers, were beautifully reflected in its clear depths.

The old butler, very old and bent and a little childish, had insisted on his right to place the cake before the bride, although rheumatism — gout, too, probably — had weakened his hands. But he crossed the large room *thinking* he was carrying it on its silver tray while two younger servants respectfully propped his feeble arms. There was a difficult moment when the three reached over to the centre of the table, but he did not see the kindly smiling and was satisfied to have done for this bride what had been his right and pleasure to do for her mother and the mothers of most of us. This little ceremony was completed by his being given a glass of

wine which he drank to the bride's health, and asked a blessing on her and her new home.

When coffee was served in the drawing-room we learned that Mrs. Bowyer had had to "retire." The daughter had followed up her observation, and found that, "rather than disturb the company" that social martyr of a mother had sat still through torture. A hornet had got caught under her cape and had travelled about — stinging as it went; searching for an outlet, it turned down between the shoulders where the angry thing fairly browsed about the poor woman's back. Fever came on and she was really ill, but the force of etiquette and hospitality combined made it an occasion to die at one's post.

The bride had started for her new home "properly, in her own travelling carriage," the others had dispersed to the Springs, and then our sweet unselfish grandmother let her failing condition be known. She had never had any illness and hardly understood her loss of strength and general faintness. It was the ceasing to live, rather than dying. But it increased rapidly and soon ended her life.

It constantly pleased her to feel she had not brought any shadow on the wedding assembly, that she had been nearly as well as always, "only tired." Quite conscious that it was rapidly closing she liked to dwell on her long life so mercifully exempt from illness, or sorrow, or cares. "But I fear for my descendants when I think how much has been given me — there must come a change for some of them." Born in a happy and prosperous home, married very early to her young husband and living out his life on the rich estate where he was born, where her children were happily married and all but one settled near her, knowing only contented love and pride for three generations, she might well feel change must come.

"You will never know what war brings," she would say to us. "My mother carried to her grave a long cut on the forehead from the knife thrown by an Indian; an Indian in the British service — *King George's mark*, she called it." And there was a story of English officers of the hated Colonel Tarleton's command riding up and demanding forage and food for themselves and the soldiers with

them; of the rudeness of one officer who did not understand the politeness with which they were told it must take an hour to prepare dinner and in the meantime would the gentlemen go to the rooms where they could take off the dust; of the excellent dinner — of her mother's having dressed herself in her best damask gown and petticoat — of the rude and angry expression of the bad officer when he saw how very green the peas were (mint or lettuce or something, I forget, was put in to add to their green color). "I believe you mean to poison us, madam. That is the meaning of all your fine airs" — of how the lady silently sent for her youngest child — "my sister Madison" — and taking the little girl on her knee quietly fed her with the peas — then: "You may feel safe now, gentlemen. Whoever eats at my table, invited or not invited, has my best care. My husband, my young sons, my brothers, are all in the rebel army and I pray for their success and your defeat, but you will get no harm from me."

"No," she would say, "you live as I have to enjoy the peace and prosperity they suffered so much to gain for us."

Is it not well we cannot foresee "what is written?" There in that once peaceful Lexington, General Lee gave his last sigh — Stonewall Jackson rests in its old churchyard — my cadet cousin was not to know the heat and burden of the day. The Mexican War gave active service to the army, and at Cherublesco he fell fatally wounded — his only wish was to be kept alive to say farewell to the uncle who had been to him father and friend and military model.

The bravest are the tenderest.

As with Nelson, a womanly sweet nature welled up at the last.

"Kiss me, uncle Joe," said the dying boy.

That uncle has seen many a battlefield since, and knows the bitterness of life; but never a harder moment came to General Joe Johnston than when he saw the life go out from his lovable young nephew.



AT THE END OF "THE SEASON."

THE TEMPERANCE TEACHINGS OF SCIENCE.

II.—THE PRODUCTION OF ALCOHOL AND THE COMPOSITION OF ALCOHOLIC LIQUORS.

BY PROF. A. B. PALMER, M. D., LL.D.

(Prelude.)

HALF A CENTURY'S STUDY OF THE QUESTION.



HAVE been requested to state to the young people of our country some things that I know, and that many of them may not, respecting the drinks called *spirituous* and *fermented liquors*, that many people use. It is thought by good and wise men and women, that young persons should be instructed about these liquors, because through ignorance of their nature and effects multitudes begin to drink them, and acquire a love for them, which goes on increasing the more they are used, until very great injury is done to the bodies, minds, and character of those who take them; a great deal of poverty, distress and misery is produced in families, neighborhoods and towns, many crimes are committed, and a vast amount of evil of different kinds is spread over the whole country, and a large part of the world.

It is important that young persons should have correct views of all matters pertaining to their welfare, their happiness and usefulness in after life. In my own case, strong impressions were made upon my mind respecting these drinks when I was a small boy, and these impressions have had an influence upon my whole long life. In the first years of my going to school in the country town where I was born, now a favorite summer resort in the interior of New York, I passed by a house where a man lived who was frequently drunk. When so, he was apt to be boisterous, staggering about and abusing his poor, heart-broken wife. Whenever I saw him, or heard him, in that condition, I was terribly frightened, and hurried past the place as fast as I could. In a few years after my first remembrance of these frights the poor wife died, when her husband gave himself entirely up to drinking. In a dark, rainy night after drinking freely at one country tavern, he was sent out, and was going to another. On his way he fell down by the side of a little ditch, and apparently, in his attempt to get up, he fell over upon his back in the narrow ditch, in which, from the rain, water was

running. Owing to the weakness produced by intoxication, he was unable to rise; and his body damming up the stream, the water ran over his head, and he was drowned. The next day his body was found, and as there was no *morgue* in the country — no place such as there is in many cities, where friendless or unknown bodies are taken, when found, the body was brought to my mother's house, which was near. A coroner's court was there held to determine the cause of death. The jury said it was accidental drowning. No one was blamed. The sad funeral occurred, and nothing was said at that funeral of the evils of drink, or the blame of drinking or selling it, though the young man that sold this drunkard the liquor and sent him out in the night, saw clearly afterwards how wrong it was; and for many years, though he repented and trusted God had forgiven him, he wore on his conscience a burden of "bloodguiltiness" for having a part in that terrible death.

The horror of that whole affair haunted me like an evil spirit for many months after. But one day an old friend of my father's, a member of the same church, called on a friendly visit at my mother's house. My oldest brother, who was then the head of the family, brought out, as was the general custom, a decanter of liquor and offered the visitor. He politely said, "I thank you for what you intend as a kindness, but I have concluded to drink no more liquor." In reply to the surprise which all countenances expressed, he said, "I *know* this liquor does an immense amount of harm, I *believe*, as a beverage, it does no good, and therefore I shall take it no more."

I saw at once, boy as I was, that if his premises were correct, his conclusion was logical, and the only one to which a good man could consistently come. This was the first temperance argument I had ever heard. I was most painfully sensible of the *harm* that liquor had done, though I had but the dimmest conception of its extent, and if it really did no good — if it did not help the harvest men to do their work better, if the "bitters" taken in the morning and "toddy" at night, did not improve the health and strength — if liquor did not warm the body when it was cold, nor protect it from the effects of heat — if it was really useless as a beverage, it seemed to me the argument was conclusive, overwhelmingly so, in favor of abstaining from it.

I soon began to inquire, to observe, and to think about these propositions: Is it useless? In what manner and to what extent is it harmful? What is it in the liquor that does the harm, or does not do the good? How are its evils to be prevented?

These are not trivial questions. They are worthy of the most careful and protracted consideration of any mind. They have received no inconsiderable portion of my attention for more than fifty years. When I was still quite young I studied chemistry, as it was then taught, and learned what the article in liquors that produces these effects was. I learned that it was called alcohol—I learned of what it was composed, and how it was produced. I afterwards studied anatomy, physiology, pathology and therapeutics; that is, I studied the structure of the body, what it does in health, what happens to it in disease; how and by what it is injured; how injuries are to be prevented, and how, when they occur, they are to be mitigated or removed. In other words, I studied to be a doctor; and after I had completed a certain course of study I commenced practising as a doctor, and afterwards I tried to teach others the science and art of medicine; and all through these studies, this experience, and these teachings, I have made careful observations, have tried some experiments, and read accounts of many others, respecting alcohol; have studied the subject at home and in other countries, and I now propose to tell you some of the things that I know about it, and believe to be very important truth.

When we get through, we shall see whether we do not come to the conclusion that the statement, the belief, and the conclusion of the first temperance argument that I ever heard were correct: *Alcohol is harmful; it is useless; we will not take it.*

THE PRODUCTION OF ALCOHOL AND COMPOSITION OF ALCOHOLIC LIQUORS.

The article in all intoxicating drinks that does the harm is called *Alcohol*. I propose to tell you what it is, how it is produced, where it is found, and what it does when taken into people's stomachs.

Alcohol is a thin, colorless liquid, lighter than water, more easily evaporated, and boiling, which makes it into a vapor, at a lower temperature than water. When touched with a burning match it is set on fire and burns with a blue flame, producing much heat and but a little light. You may have seen it burning in a spirit lamp. It is a very definite chemical compound, and is the same wherever found. Its character is not changed by anything with which it is mixed, and it continues the same, unless it is burned up or destroyed. Those of you who have studied chemistry, have learned that there are a few original or simple elements which when combined together in various proportions form all the ordinary substances we see and use. There

are four substances or elements which, when combined, form the chief part of all our foods, and only three of these enter into the composition of some articles which we take.

These four elements are called oxygen, carbon, hydrogen, and nitrogen. When each of these substances is alone, three of them, oxygen, hydrogen, and nitrogen are gases, without color and invisible, like the air we breathe, or the gas we burn for lights. Indeed, the air is composed of two of these, oxygen and nitrogen. Carbon, when alone, is a solid substance. It is almost pure in charcoal and in lampblack, and is quite pure in the diamond. When, however, it is combined with the other substances, its compounds take different forms—sometimes the form of gas, sometimes the form of liquids, and sometimes the form of solids. When combined with a certain proportion of oxygen it forms carbonic acid gas, which bubbles off in a glass of soda water. When united with a certain proportion of oxygen and hydrogen it forms sugar, a solid, sweet substance, as you know; and when united with the same, oxygen and hydrogen, but in different proportions, it forms alcohol—this liquid that we are to find out about.

Now, then, the different substances mentioned and many others, though formed from the same elements but in different proportions, have, many of them, entirely different appearances, properties, and effects—are all quite different materials. These are chemical facts which many people do not understand; hence they make mistakes when they talk about alcohol. Some, in their ignorance, say it is in all our food, that it must be in grain or it could not be got out of it, that our food is changed into alcohol in our stomachs, and various other absurd things. It does not exist anywhere in *Nature*, either in grain, or fruit, or anything else.

But you are desirous of knowing from what and how alcohol is produced. It is always produced from *sugar*, by an *artificial process*.

"When grape sugar—the sweet substance existing in grapes and various other fruits—is dissolved and diluted in water, and at the ordinary temperature of the air, and has a particle of yeast added, a change goes on in it. It "works," as it is said. I have already indicated that sugar is composed of carbon, hydrogen, and oxygen in certain proportions, and have said that when the proportions of the elements in a substance were changed the nature of the product was changed, often completely. Now, in this "working," such a change takes place in the elements of the sugar, by changes in their proportions and relations, that the sugar is destroyed, as sugar, as much as wood is destroyed when it is burned—that is, it is changed in the form and character of its substance; and instead of sugar we have two new substances produced, alcohol, a liquid, and carbonic acid, a gas. The carbonic acid passes off in the bubbles, as the liquid—

cider, for instance — “works ;” but the alcohol remains in the cider, having a strong affinity for the water that is present.

When common cane or maple sugar is dissolved and largely diluted with water, and yeast is added, the sugar is first slightly changed from cane to what is called grape sugar, and then into alcohol and carbonic acid, as in the other case. Also when pure starch is taken, or when grain, or rice, or potatoes, all of which contain starch, are ground up and mixed with water, and yeast is added, fermentation takes place ; the starch is first changed to sugar, and then to alcohol and carbonic acid, as in the case of the fruit juice, and of the sugar and water.

In the yeast which produces these changes are living plants, so small they cannot be seen without a magnifying glass ; these multiply rapidly, when they are in a proper vehicle, as the sugar and water, or starch and water, and cause all this “working” and change. Now these little plants do not have leaves and roots like larger plants that grow from the ground, nor do they have flowers and seeds, like many larger plants. They are more like mushrooms, but not of their shape. They are only little rod-shaped particles, linked together and sometimes branching off, something like old treetops.

There are many such very small, living, growing bodies, some very much smaller than the common yeast plant, found in common water, and floating in the air ; and they produce particles much smaller than themselves, which serve a similar purpose to seeds of larger flowering plants ; and these, which are called *spores*, are so very small they go into almost every place where the air goes, and they get into apple juice and grape juice, when it is exposed to the air, and grow up into the little plants, and cause fermentation ; so that it is not necessary to add yeast to apple juice to produce fermentation and alcohol. In fermenting grain, to make beer or whiskey, yeast is added to cause the changes.

To make strong alcoholic cider out of apple juice, all that is necessary is to leave it in the barrels, and to give it vent by the bung when it “works.”

To make wine, the grapes are crushed and left in tubs or vats when the fermentation takes place ; the skins and seeds of the grapes settle to the bottom, and are called *lees*, and the wine is drawn or dipped off and put in casks or bottles, where in time other slight changes take place, which produce particular flavors ; but the alcohol produced from the sugar remains the same, and there is more or less of it, according to the amount of sugar which is fermented and changed.

In making beer grain is used, mostly barley. Some of the barley is moistened and kept in a warm place until it sprouts, or sends out little roots. In this process much of the starch in the grain is changed into sugar. Then the sprouted barley is dried and

roasted, and this is called *Malt*. The malt is mixed with other ground grain and hops, and sometimes aloes, quassia, and other bitter things are added, the whole is heated together, and yeast is put in — brewers’ yeast — the fermentation takes place, the same alcohol is formed, and the liquid is put up in casks or bottles, like the wine.

Whiskey is made by treating the grain in a similar manner, but no hops are added ; and when the fermentation has taken place and the alcohol is formed, instead of leaving it in that condition, it is all put in a still, or a large boiler with a tight cover, but with a tube or pipe attached, making altogether what is called a retort. This tube extends on and is twisted round into a large coil, or “worm,” which is placed in a tub, into which cold water is constantly running — the tube passing out of this and emptying into a vessel. Heat is now applied to the retort, or boiler, and the alcohol which is in the water with the remains of the grain, being lighter and more readily formed into vapor, passes up into the tube and is cooled in the coil in the water, so as to come into the liquid form again, and runs out into the vessel to receive it. Some steam from the water passes over with the alcohol and is condensed and discharged with it, and the whole, after proper rectifying, constitutes whiskey.

To get more pure alcohol separated from the water and any remains of the grain, repeated distillations are necessary. You see by these statements, that distillation does not produce the alcohol, but merely separates it from other substances.

Genuine brandy is made by distilling wine, or the fermented products of the grape. Rum is made by the distillation of the fermented products of the sugar cane ; gin, by distilling grain products like the whiskey, with the addition of juniper berries and leaves, or the oil of turpentine, to give it a peculiar flavor.

Whiskey, gin, rum, and brandy are called *Ardent Spirits*. They all contain alcohol and water, in nearly equal proportions. What is called proof spirit contains fifty parts in a hundred of pure alcohol by measure.

Pure, or genuine wine from fermentation of grape-juice, contains from five to sixteen parts in a hundred of pure alcohol ; but the wines in the market sometimes have twenty-five parts in a hundred of the alcohol, as more alcohol is added to it, after the grape juice is fermented.

Beer contains from four or five to twelve or more parts of alcohol in a hundred ; and cider nearly the same, according to the amount of sugar contained in the apples of which it was made.

Currant wine, elderberry, and other wines are sometimes made and drunk even by temperance people, who do not know they contain the same alcohol and whiskey. Some juice of the berries is mixed with water and sugar and allowed to ferment,

often producing a strong alcoholic liquor. This is just as bad as any other drink which has the same amount of alcohol in it.

Alcohol readily mixes with many things besides water. It dissolves resins, making varnishes, and also essential oils, such as the oil of peppermint, cinnamom, etc., making essences. It also dissolves the active medicinal principles of many drugs, making tinctures; and it is used for making various medicines and coloring materials where the alcohol is driven off before they are finished. It is thus, like various other poisons, such as lead, arsenic, mercury, aqua fortis, etc., useful in the arts; but this does not prove that it is innocent when used in any of its mixtures as a drink.

I have taken so much space to tell about the production of alcohol, because I think it important that all should understand about it. It is particularly important to know that distilling — making the alcohol into vapor by heat, and bringing it back to the liquid form by cold — does not change its character. Water is sometimes distilled in a retort to separate it from other things, but when it comes from steam into liquid again, it is the same

water. A kind of distillation is going on around us with water all the time. It goes up in vapor from the earth and the sea, and comes down in dew and rain, the same water that rises. So the alcohol that is made into vapor and brought back to a liquid in a still is the same thing, unchanged.

I said alcohol was the same wherever it was found. It is the same in wine and beer as in whiskey and brandy; and the drunk-making quality of any liquor depends upon the amount of alcohol it contains. A glass of very strong wine, containing twenty-five parts in a hundred of alcohol will produce essentially the same effect as the same glass filled with half whiskey and half water. A glass of weaker wine containing twelve and a half parts of alcohol in a hundred, would be equal to a glass of whiskey and water that has twice as much water in it as the last. Other things in the wine and beer make them taste differently, but the effects in the blood and upon the brain and the nerves are essentially the same. As you see, then, there is no material difference in drinking wine or beer, and in drinking whiskey or brandy with a certain amount of water added.

WAYS TO DO THINGS.

BY VIRGINIA SMITH.

XXVII.

A BOY'S MENAGERIE.

A MENAGERIE!" I hear in tones of dismay, from mammas in more than thirty States (besides several Territories). But, dear mothers of boys, this is a miniature affair; the performers who risk their necks and "jar the house down," are not your precious sons, but wooden figures, or dolls; the cages of wild animals are no roaring, noisy, living creatures, but harmless beasts of wood or — wait till I tell you all about it, first assuring you it is one of the most quiet, as it is the very most absorbing, amusement I ever knew, for where in this broad land is there a boy, or even a girl, who does not delight in a menagerie?

Now, you who have some money to spend, and you who have only nimble fingers for capital, let me tell you how to make a "perfectly gorgeous" affair, complete from tent flag to the baby elephant.

First, you must have a tent. The framework of this is an umbrella. You who have money may buy one of the large white ones used in warm weather to shield the drivers of trucks and wagons,

the larger the better, provided you have plenty of room to spread it in. You without spare cash may beg of mamma an old one. This tent may be set up on an attic floor, or on an old table not too good to put nails into; but the best way is to make a platform, which can be placed wherever you choose. An old boy by my side, who has had experience of boy's contrivances, suggests that the cheapest way to get the platform is to buy for a quarter, at any shoe store, a long shoe or boot box, the boards of which are exactly what you want. Make the platform by laying the long boards side by side till it is wide enough, nailing two strips across on the under side to hold them in place. On this you may build your tent and its ropes and belongings, and when you wish to use it, or display it to your friends, you can lift the whole thing and set it upon a table or a couple of carpenter's horses, in the parlor if you like.

To prepare your umbrella, saw off from the handle the ornamental part, which will bring the stick just about to the edge of the cover when closed. Get a piece of board not less than six inches in diameter, and bore a hole through the middle exactly the size of the handle, so that when you push

it in it will be a snug fit, and will hold the umbrella upright.

Now take off the cover, and cut a pattern of one of the pieces of which it is composed. By this pattern cut new covering out of unbleached muslin, which you can buy for five or six cents a yard. The boy without money may cover with the strongest

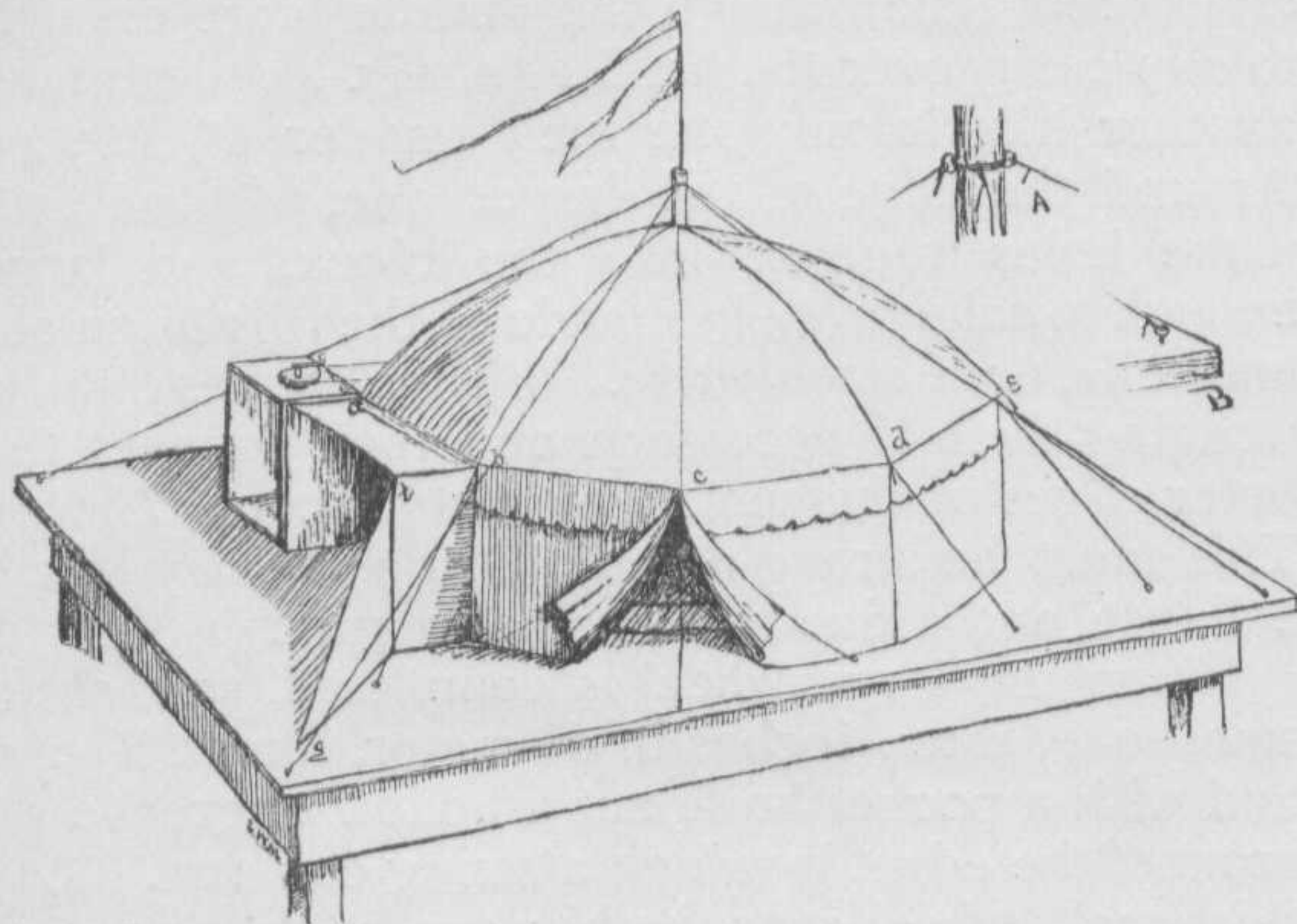


FIG. 1. — TENT.

parts of old sheets. In cutting the cloth after your pattern you must leave *half an inch* each side for seams, and on the narrow edge of the piece let the cloth project *four inches*, to be afterwards cut into scallops and hang, like a real tent.

To sew the seams a sewing machine is best, because strongest, but if you have no machine, and no sister or mother able to do them for you, you must bravely attack them yourself. Take strong linen thread and run them together as well as you can. There is another way to make a cover, much easier but not quite so "ship-shape." Get unbleached sheeting, which comes very wide, say two yards wide if your umbrella is a common size. Buy a piece as long as it is wide, and find the exact middle by folding it twice, once each way. Now cut a small hole in the middle, and cut through *one* of these folds from this hole to the edge. Lay this over the frame, putting the hole over the top of the stick, and the open side at the back of the tent. It will be too wide, that is, the cloth will cover the umbrella and have enough left to lap over where it is cut apart. Do not sew up this place, but let one side lie flat over the other as it will; then with the scissors cut off the edge all around, leaving four inches for scallops as before. The scallops look best bound with bright red dress braid, at a cost of five cents probably, but the binding may be omitted.

Next saw off the ferule end of the umbrella frame, and bore a hole straight into the stick to hold a flag pole. If you have no flag you can buy one for a few cents; but if you are a household of brothers and sisters, you will enjoy making a dainty flag. Having made your flag socket, put on the cover,

and sew it to the ribs, as the original one was sewed. Just before sewing at the end slip over each rib a common brass curtain ring (costing two cents a dozen), to hook your side walls into.

Now open the umbrella which has become the roof of a tent, and stand it up in its block. Measure from the edge of the frame to the floor, and take a strip of the unbleached muslin *an inch wider* than this length, and long enough to go all around the outside edge of the umbrella, and *three inches over*. This is for the side wall, and it looks pretty bound with red braid, but it will answer with a simple hem, to keep it from tearing easily.

Look now at *Fig. 1* and see how this tent wall is arranged. On the back side, that you cannot see, it is in one piece. From *a* to *b* there is no wall, for the convenience of the operator who sits at that end of the tent. On the lines *c*, *d* and *e*, the wall is cut open its whole length, so that it may be turned back, and both sides should be hemmed. When the show is in operation the two sections of the side wall between the letters *c* and *e* are turned up and laid upon the roof, giving the spectators, who sit in front of the table, a good view of the inside. From the corner *b*, the side wall you see turns out to make the piece *b f* (held in place by a U-shaped wire), and is cut off slanting to make the wing *f g*.

Now turn your umbrella upside down, lay the side wall where it is to go, and at every point where it passes a rib, sew a hook. Of course at *c*, *d* and *e* you will want a hook on each piece. You can buy dress hooks in large sizes, or you can make them of wire. They are to hook into the rings you arranged to hold up the wall. To keep the bottom down you must drive a wire staple into your platform or table exactly under each rib, and sew a hook on the wall to match it. Five cents' worth of staples will be enough.

The tent must have guy ropes to keep it steady, and make it look like a real tent. For these you may use common twine. From the centre post, just above the top of the tent, you want four strings, going out in straight lines (as you see in the cut), drawn snug and tied to staples which you have driven in proper places. From each point at the end of the umbrella ribs, you must tie another string, draw it out snugly, and tie to a staple, as you see in the picture. In *Fig. 1*, in the upper corner you may see the method of fastening the guy ropes to the centre post. Four curtain rings are slipped on to a string which is tied tightly around the post, and into each ring a guy rope is fastened. The proper way to secure the lower end is also shown. In the cut this is a screw eye, but a staple will do as well.

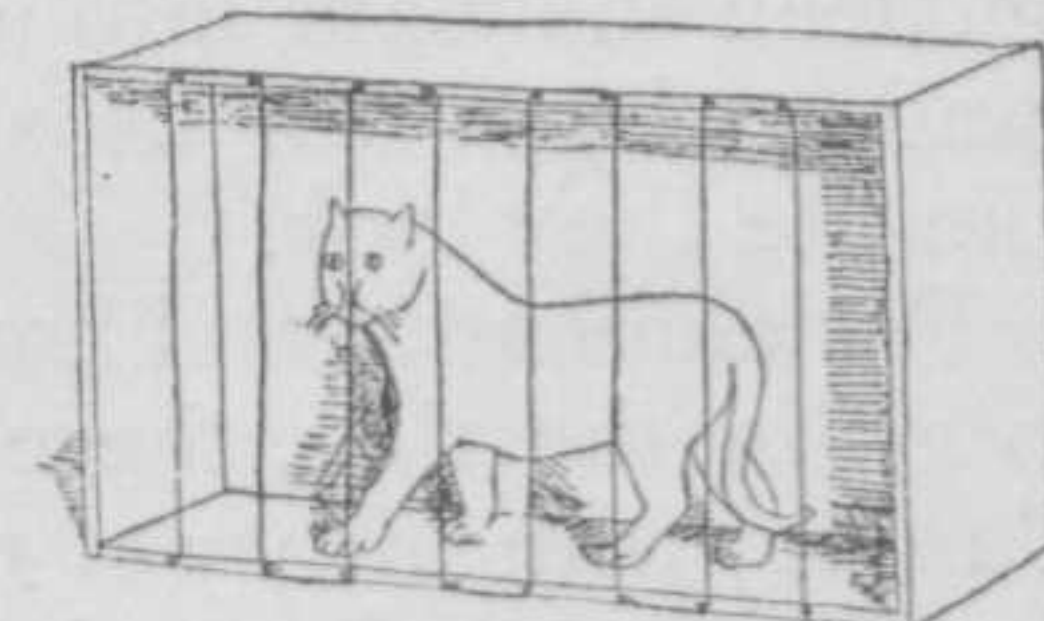


FIG. 2. — CAGE.

Now for the inside. First, just within the walls,

must be a ring of animal cages all around, excepting from *a* to *e* (*Fig. 1*) which is left for the operator and the spectators. The cages are full of wild beasts, and the next thing is to get them — cages

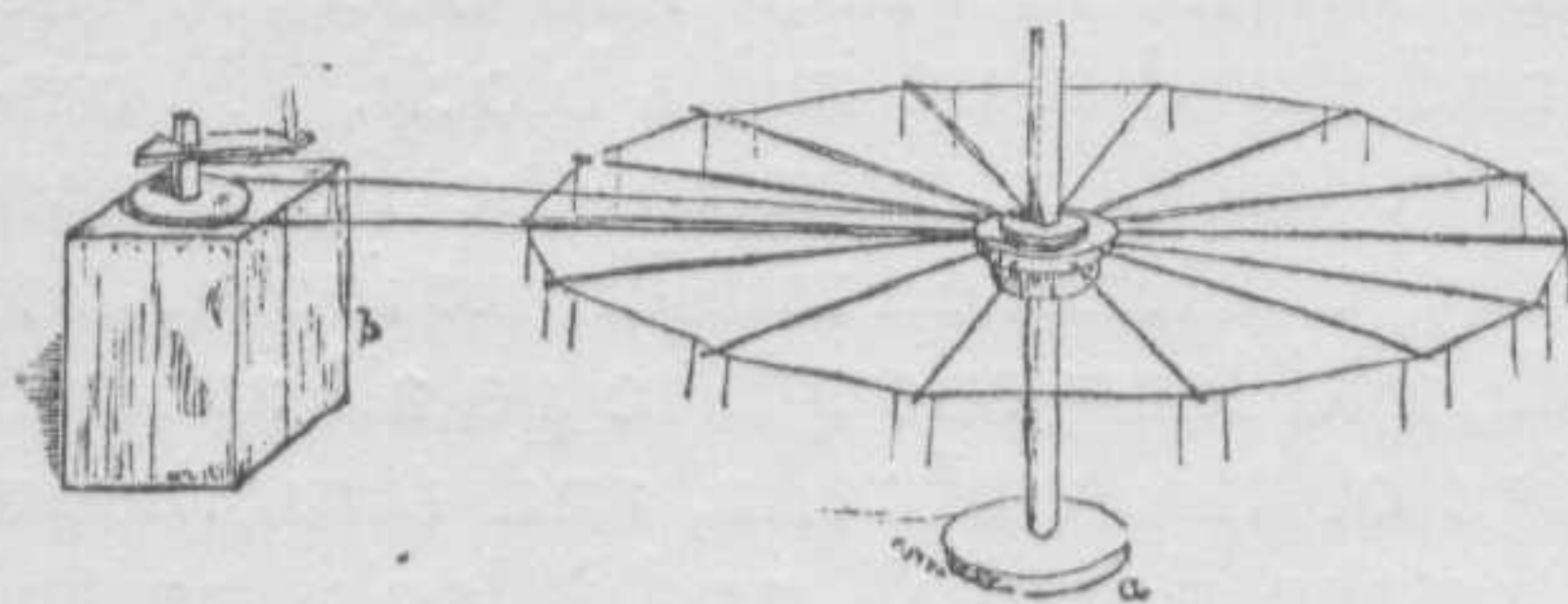


FIG. 3.—THE WHEEL.

and beasts — which is not so hard as it seems. Beg of any friend who smokes, or buy at a cigar store, a number of empty cigar boxes of the ordinary size, enough to reach the whole length when set up end to end on their long edges. To turn the boxes into cages, first take off the covers, and wash off all paper, then paint the inside white, or line it with white paper pasted nicely in. Next get a paper of small gimp tacks, which have neat round heads, and drive in the edge top and bottom, three fourths of an inch apart, and exactly opposite each other (*Fig. 2*). Now take fine black cord, or coarse linen thread, and after fastening one end, weave it around the tacks, as you see in the figure, to make bars.

Your cages ready, to fill them. The really best way is to draw and color the animals yourselves, and this, when drawing is so generally taught, you ought to be able to do. But if you cannot, then find an old toy book of animals, or else hunt through illustrated papers till you have a collection of pictures of the animals usually seen in a menagerie; lion, tiger, panther, wolf, kangaroo, etc., etc., and monkeys of course. Cut them out roughly and paste each animal carefully on to common cardboard. Let them dry thoroughly under a weight, and then if they are not colored, paint them with water colors, as nearly like life as you can. A colored animal book which no doubt you, or some of your friends have, will help you in this. Let the paint dry, and then cut each animal out on its outlines, leaving the cardboard a half inch longer than each foot. You will have quite a natural looking set of beasts, and on turning back the extra length under the feet they will be able to stand up perfectly. Or you can buy the sets of animals now publishing, all colored to life, and made to stand up, but it is more fun to draw and color them, remember. Push each one between the bars into a cage, strew the floor with sand, and you will be surprised to see how much like life they look.

For elephants and horses and camels if you like to go in the ring, there are two ways to provide. The boy with plenty of money, and time to look for them, may be able to buy the kind he wants, but a more satisfactory way always is to make them yourself. Find pictures of the animals you need, and make them exactly as described for the wild beasts, excepting that you need not provide extra length of feet for standing up, and that you must paint both sides instead of only one.

Next in order is the arrangement by which you operate your performers. The animals that go round in the ring are all worked from above, slung from a wheel which is out of sight under the edge of the tent roof.

This wheel, shown in *Fig. 3*, is easily made. First saw a round block five inches in diameter, and bore a hole through the middle large enough to slip easily over the handle (*a*, *Fig. 4*), then make another like it only one inch smaller (*d*, *Fig. 4*). Around the edge of the larger one, with an awl, make holes running into the block, and large enough to take in spokes made of the ribs of an old umbrella, or of strong wire. Fit the spokes tightly, wedging them if necessary, and then connect the outer edges of the spokes by a stout cord (*Fig. 3*). This must be strong and firm, or some day it will collapse, and a fine show come to ruin.

When the large wheel is completed, saw out a small one, three inches in diameter, like *h*, *Fig. 4*, and with a pocket knife cut a hollow or groove all around the edge, in which a string can run. Lay this small wheel over the big one, with the centre holes exactly together, and put two screws through both, as you see in *h*. Next slip the two wheels over the handle, up to the spring which holds the umbrella open; then put on, under them, the other block *d*, and push up close to the wheel, so as to support it, but not tight enough to make it work hard. Fasten this lower block in its place by boring a small hole through it (at *k*) and through the umbrella handle, exactly where you want it to stand. Now by slipping in a piece of wire, *e*, you make a firm rest for your revolving wheel, and on pulling it out you can draw off your wheel, and close the umbrella, or, more poetically, "fold your tent." You will make the wheel move more easily by scattering powdered soapstone on the lower block, where the wheel rests, or by rubbing it well with a carpenter's pencil.

To this large wheel are fastened your horses, and whatever goes around in the ring, and to run it easily and nicely there is a simple arrangement, which you see in *Fig. 3*. (It may be turned with the hands, but not so well.) From the grooved

wheel screwed to the hub of the big wheel runs a cord, through two small holes in the tent cover, and around another grooved wheel fastened to the top of a starch box, which is nailed to the table. This wheel is turned by a crank, the parts of which are shown in *Fig. 4*;

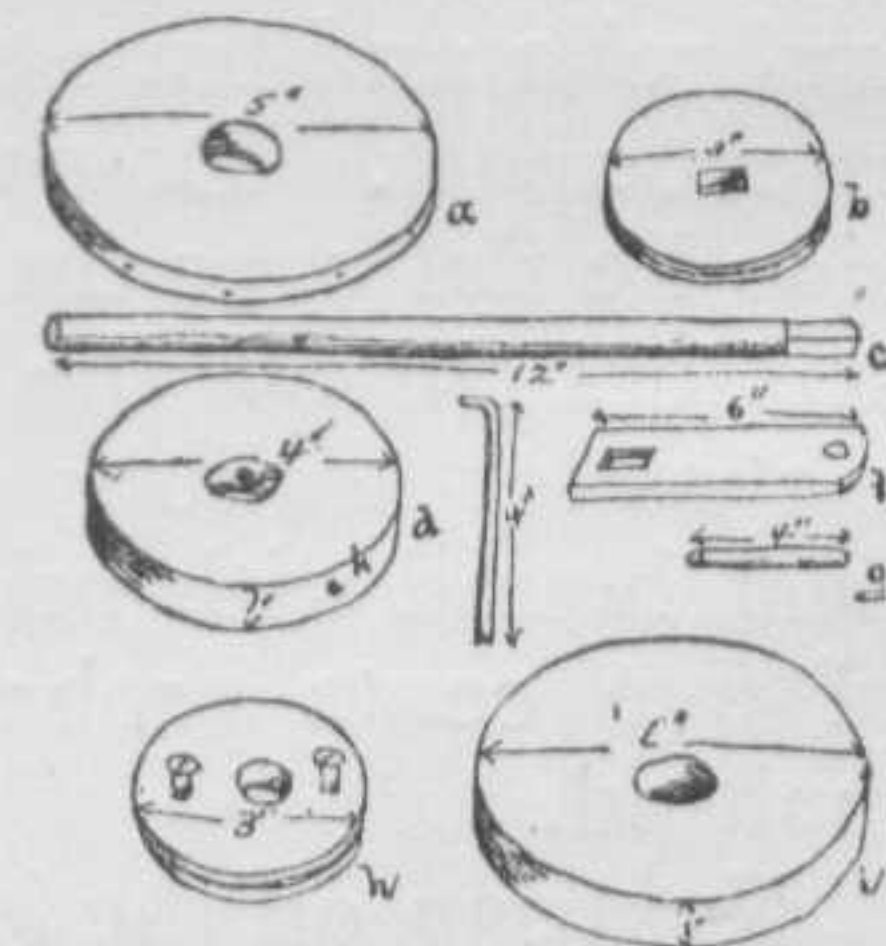


FIG. 4.—PARTS.

b is the grooved wheel, three inches in diameter, *c* is the rod coming up through the box, on which it turns, and which you see is cut square at the top, *f* has a square hole at one end which fits over this rod, and a round one at the other end, which receives the handle *g*,

by which it is turned. The figures on the diagrams give the size in inches. Now you see when this is arranged, and a string drawn tightly

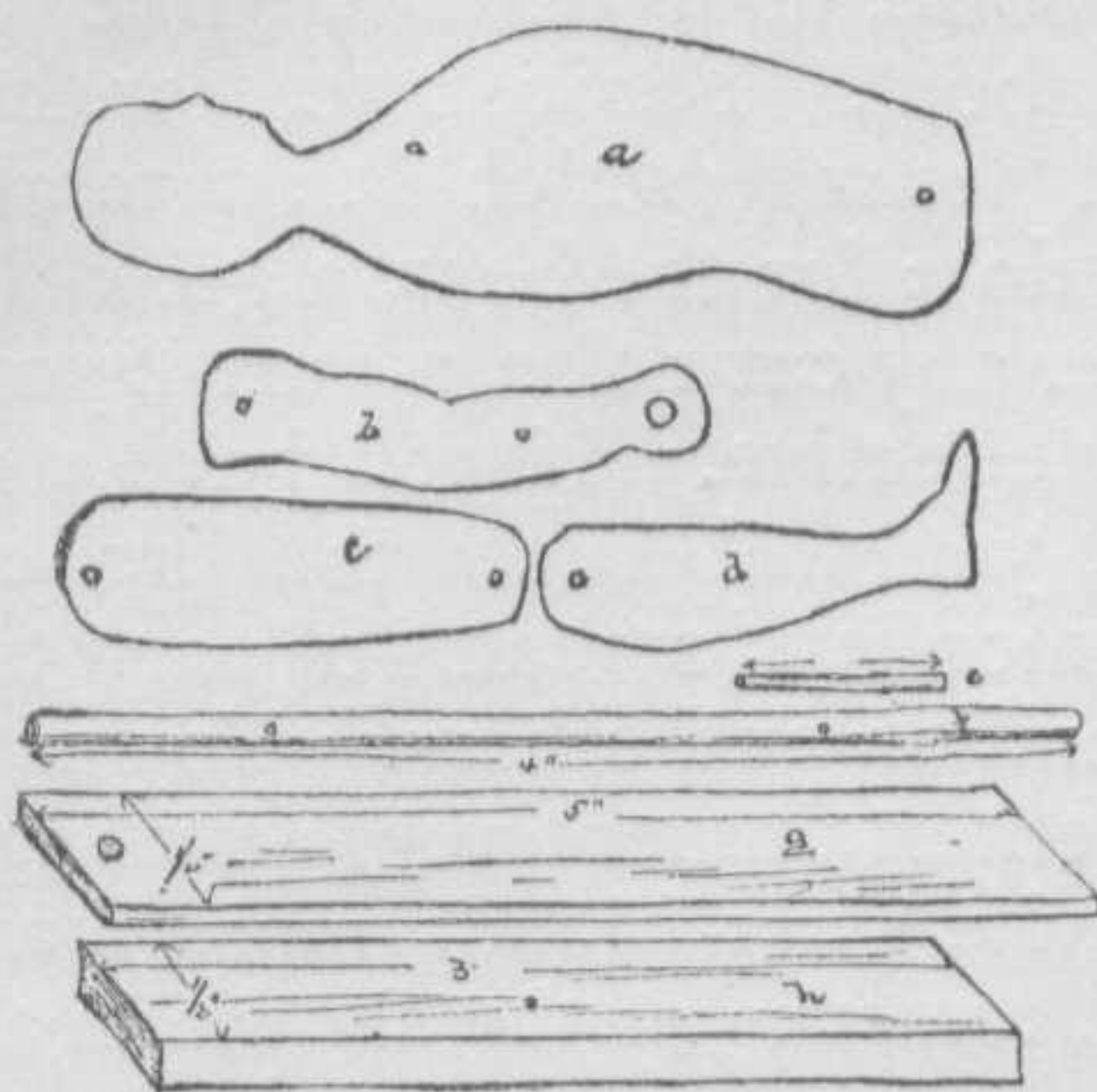


FIG. 5.—PARTS OF ACROBATS.

around the two grooved wheels, you may run your wheel as fast as you like, from the outside. To attach the animals to the wheel, prepare a number of threads of fine black sewing silk, waxed, to make it stiff, in this way: Take small black pins, the finest and smallest you can get, and around each one just below the head, tie tightly a piece of the waxed silk, then bend the pin into a hook. When you have enough of them ready, take one of your horses, tie around his body two threads as near of his color as you have.

Tie one just in front of his hind legs, leaving a little loop on top of his back where it is tied. Tie the other just behind his fore legs, and have another loop there. These loops are for the pin hooks to hook into to hold the horse and keep him straight. All your ring animals must be prepared in the same way, and you should be careful to get them of only two heights, one for horses, and one for elephants. Now take your silk threads with hooks on, and tie them in pairs, to the cord which forms the rim of the wheel, having the hooks the same length from the wheel, and just high enough to keep the horses' feet from touching the floor, which you must find out by trying it. You can see these threads hanging to the wheel in *Fig. 3*. Now if you wish to have ring processions of elephants, make a second set of threads, and tie them at a suitable height between the others. When using the shorter threads the longer ones may be kept out of sight by hooking the pins over the cord they are tied to.

Do you see how this works? The operator sits behind the entrance to the tent; putting his hand in, he draws two lines with hooks on out towards him, hooks on a horse or camel, and pushes him into the ring; he then moves the wheel a few inches, takes another pair of hooks, and hooks on a second animal, and so on. In this way he can regulate his performers as he likes, and clear the ring in the same way. His seat is so placed that the guests who are looking into the open tent will not be likely to see his hand. Some care is necessary in turning the wheel, not to begin too fast so as to throw the animals out of position. You will need to try it by yourself a little, to learn exactly how to manage it properly.

For performers, I will tell you how to make one,

and your own recollection of what you have seen will help you to more.

A pair of acrobats working over a bar will be very attractive, and are not hard to make. Get some thin wood, such as is used in a scroll saw, cut from it the parts shown in *Fig. 5*, and make awl holes where represented. Make two pieces like *a*, four like *b*, eight like *c*, four like *d*. Take a body *a*, lay an arm *b* on each side, and fasten by a string passed through all, and knotted on both sides, leaving it loose so that it will work freely. Next the legs. First with a knife shave down two pieces marked *c*, so that the lower ends shall be one half as thick as the upper ones, lay one thin end each side of a piece *d*, and make a knee joint as above. Having two legs thus made, put one on each side of the body, and make the joint through all five pieces at once, i. e., two for each leg, and one for the body. Now paint your figures as nicely as you can in gay colors or stripes.

Make the bar for them by cutting two pieces like *g*, and one like *h* (*Fig. 5*). The lengths are marked in figures; *h* is the bottom piece which must be nailed to the floor, and *g* the post at each end of it, *f* is the bar on which they vault, and it passes through the holes in all four hands, and into the hole in the top of the post on each side. To make them turn a somerset, a stiff wire is passed through each pair of arms at the little holes below the elbow, holding them apart, and another one an inch long (*e*, *Fig. 5*), put through the small holes in the bars, after the acrobats are in place. Each wire comes between the arms of one of the figures, and as the figure turns, the wire on the arm hits it, and the acrobat goes over the bar. Since you do not want both to turn over at once, you must put the wires in the bar turning opposite ways.

The arrangement by which they are made to perform, by a crank on the outside, is shown at *Fig. 6*, and being exactly like that which turns the big wheel needs no description. The only difference is, that the cord or band which passes over the grooved wheel, goes down to the floor and

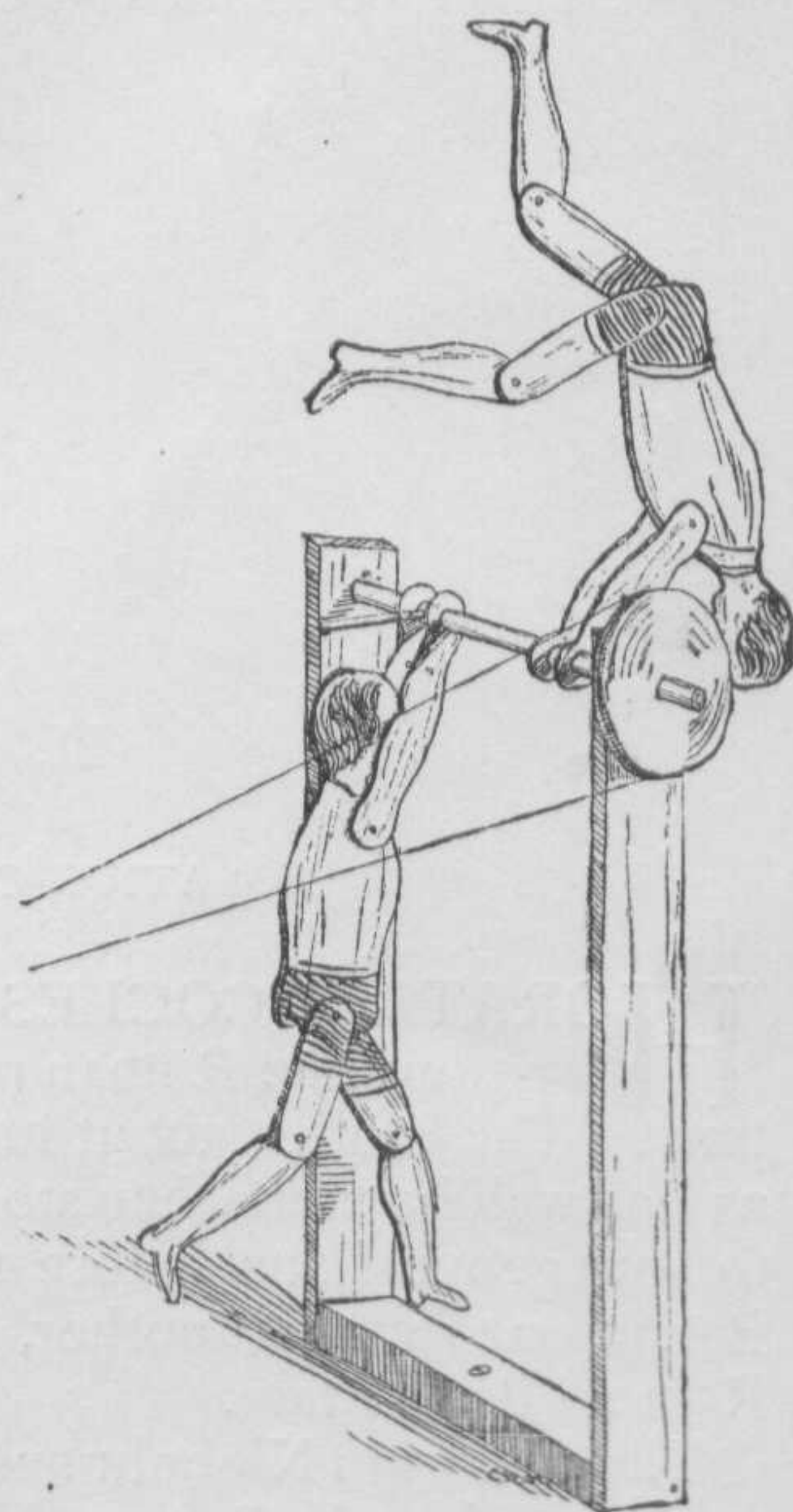


FIG. 6.—ACROBATS.

through two staples, so that it may not be in the way of the ring performers. The wheel and crank outside are on the farther side of the starch box, and so not seen in the drawing.

One thing more you may add to the tent with pretty effect, and that is, lights. Get the Christmas-tree candlesticks with a wire attached, so that you can twist one around each rod of your umbrella tent, in a circle not far from the stick (for fear of fire). Have the largest and best candles, or they will not burn long enough. A tent thus lighted up is very attractive.

To give an entertainment to your friends, you can arrange a programme something like this: First have a procession of animals around the ring, which you can make one long, apparently endless string, by putting on a new animal every time the turning wheel brings before your opening one which has been around once; after this — when you have used up the animals which are not shut up — have your acrobats perform, with any other things of the kind you may have arranged; then have a showman, made of a small doll dressed very gayly with a stick or wand in his hand, who shall be hooked on to the wheel (by a thread around his neck or waist) and go around slowly, pausing before each cage to describe and exhibit the animal therein, which he does by means of your voice disguised a little. He should tell something about each creature, especially anything odd or curious in his manner of life. You will easily find interesting stories and facts about animals in books of natural history (especially Wood's, if you can get at that in some

library). At the same time, while the showman is talking about the animal, a helper — boy or girl — concealed behind the table, should give imitations of the animal's usual noise, as if he didn't like to be stared at or talked about. For instance, for the lion the helper should "roar" (which I'm sure all you youngsters like to do); for the bear, a growl is appropriate; for a tiger any cat noise, a purr if you can manage it, is very effective. If you have visited real menageries, you will know the proper sounds, the chatter of monkeys, screams of parrots, hoarse barks of the sea lion and others. You can make this part of the entertainment very amusing, and if you wish to invite your friends more than once, you can vary the remarks of the showman as much as you choose.

Now, a few last words. Give yourself plenty of time to make the whole thing properly. Do not begin in haste, and expect to have it finished in a day or two. Take pains to follow directions carefully. Practice operating your figures till you become expert, and you will be delighted with your success. When all is ready, and you are "well up" in your duties, invite half a dozen friends to see it. If you have a press you may print cards of invitation and the most showy bills you can manage. But I'm sure I needn't tell you how to enjoy it after you have made it.

Let me say that everything described has been made and worked, and the drawings are from the articles themselves. No tools are needed except those found in every home, and no skill beyond that of an ordinary boy, fourteen years of age.

BOYS' HEROES.

BY EDWARD EVERETT HALE.

II.

HORATIUS COCLES.

HORATIUS COCLES was a great favorite among the Roman people from a very early time. The stories about him varied more or less, as may well happen when stories are told from father to son generations before they are written down. But, in one form or another, every historian of early Rome tells the tale.

The historian Niebuhr suggested that the stories we have of early Roman history must have been, at one time or another, transmitted in the form of ballads. And, with a great deal of ingenuity, and a great deal of spirit, Mr. Macaulay reproduced

some of these supposed ballads from the history. These he called *Lays of Ancient Rome*, and they have awakened, for this generation, an interest wholly new in the stories. Mr. Macaulay himself, indeed, is more likely to be remembered, two hundred years hence on their accounts, than for anything else which he has written.

So is it that almost every schoolboy who will read this article, has read, and perhaps has told from the platform on "Declamation Day," that

Then out spake brave Horatius
The Captain of the Gate,
"To every man upon this earth
Death cometh, soon or late.
And how can man die better
Than facing dreadful odds

For the ashes of his fathers,
And the temples of his God!

It would be rather an interesting thing to compare the different stories about the three who held the bridge, as they were told by the different historians of repute. Any boy or girl who lives where there is a good public library can do this, easily enough, by looking out the article "Horatius Cocles" in Smith's larger *Dictionary of Biography*, and then finding the authorities cited there. Some of them have been translated into English, and for the rest, the boys who are studying Latin could hammer out the meaning without much difficulty. Indeed, that would not be a bad subject to give to a bright class at school for a "composition" to show the difference between the various narratives of "The Battle at the Bridge."

Here is the story as Plutarch tells it:

Porsenna, making a sharp assault, obliged the defenders to retire to Rome. In their entrance they had almost admitted their enemy into the city with them. But Publicola, by sallying out at the gate, prevented them. He joined battle by the side of Tiber — and opposed the enemy as they pressed on with great multitudes — but at last he sank under desperate wounds and was carried out of the fight. The same fortune befell Lucretius, so that the Romans in dismay retreated into the city for safety, and Rome was in great hazard of being taken, for the enemy forced their way upon the wooden bridge over Tiber. But Horatius Cocles, seconded by Herminius and Lartius, who were two of the first men of Rome, made head against them. Horatius had the name of Cocles, from the loss of one of his eyes in the wars — or, as others write, from the depression in his nose — which left nothing in the middle to separate the two eyes — and thus made both his eyes to appear as one: — hence, meaning to say Cyclops*, by a mispronunciation they called him Cocles. This Cocles kept the bridge, and held back the enemy till his own party broke it down behind, and then with his armour dropped into the ruin, and swam to the hither side, with a wound in his hip from a Tuscan spear.

Publicola, admiring his courage, proposed at once that the Romans should every one make him a present of a day's provisions, and afterwards give him as much land as he could plough around in one day, and besides, erected a brazen statue to his honor in the temple of Vulcan, as a requital for the lameness caused by his wound.

This statue, it would appear, remained visible to a late period in Roman history.

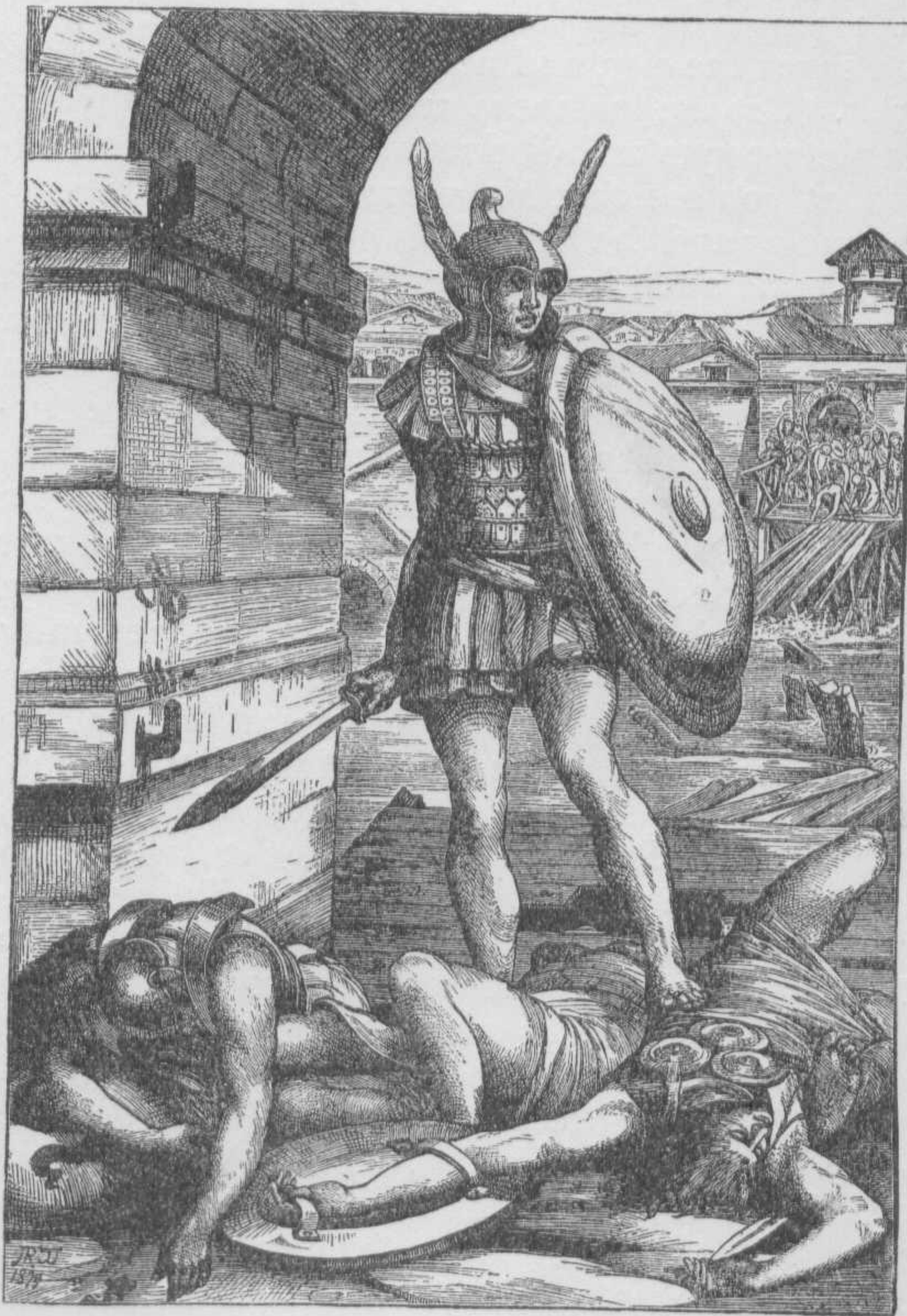
All this happened when the republic was newly formed, Publicola being, indeed, one of the first two consuls. The name of Horatius is enough to show that Cocles was one of the great Horatian family, which appears very early in history and lasted till after the Empire began. The poet Horace was connected with it in some way; and every boy named "Horace" may look to it as having given him his name. So we know that Horatius Cocles was, in a fashion, a relation of the three Horatii.

Now it may have been that the Horatian family, or *gens*, as it is the rather affected fashion to call it now, was specially prolific of brave men,

* This is one of Plutarch's frequent absurdities. Cyclop is a Greek word, and there was no reason why the Romans should speak Greek.

ready to die for their country. Or it may be, that, some fifty or a hundred years after, there was some bard among the retainers of the family or in the family itself, who was specially good in composing and singing the lays of old times. In that case there would be more Lays of the Horatian family than of any other, and their lays would have lasted longer.

Mr. Macaulay, in his ballad, clings very closely to this story. He gives to it the confirmation of



"ALONE STOOD BRAVE HORATIUS."

the statue. And, in all such things, a visible statue is a great help to the man who sings the song.

And they made a molten image
And set it up on high,
And there it stands until this day
To witness if I lie.
It stands in the Comitium,
Plain for all folk to see,
Horatius in his harness
Halting upon one knee.
And underneath is written
In letters all of gold,
How valiantly he kept the bridge
In the brave days of old.

The poet Horace himself says that "brave men lived before Agamemnon;" and he says that the reason why no one remembered them was that they

had no Homer to write about them. This is a hint to people who would build up the reputation of their families, that they will do well to encourage the young poets of the household.

Horatius Cocles is the hero who represents men who have had to stand alone for their country. And he is not simply a selected champion for his country, as David is when he kills Goliath, or as Hector is when he fights Achilles before the walls of Troy. As the story is told, the whole fate of his country "pivots" upon him. Now this is often the case when people do not know that it is so. The wise man saves the city, and no one thanks him for saving it. But the instances are few in history where in a picturesque and distinct way one man so stands out that you see that his success is the success of his country and that his fall is his country's fall.

We remember Arnold von Winkelried as such a man, but the crisis is less than in Horatius' success. Jane Darc, the Maid of Orleans, may be spoken of in that way. While she succeeded, France succeeded. When she failed, France failed. But here is rather an instance where the country needed a leader and found one. In the case of Horatius it is not a leader who was needed; Publicola was a sufficient leader. Horatius had a great opportunity and he was sufficient for it. When John Hampden took the whole shock of the anger and harm of the king, he was such a man. But Hampden was only one of many who in turn would have taken the same stand. Hampden's case was the first one on trial, and with the sturdy pluck which distinguishes Englishmen, he stood the assault, although it were led by his king. In American history Mr. Joshua Giddings is somewhat such a man. He represented the People at a time when the lower House of Congress did not want to hear the People. Then the House would turn him out. The People would elect him again. The House would turn him out again. The time came when the People again controlled the House, and to that time I suppose he had looked forward.

But as I said before, it is only because we do not see very deeply into the causes of things that we see but few such picturesque instances and preserve the names of but few of such heroes. The proverb says that "for want of a nail the shoe was lost, and for want of a shoe the horse was lost, and for want of a horse the rider was lost, and for want of a rider the army was lost, and for want of an army the crown was lost, and all for the want of a two-penny nail." But that seems to me but a bleak way of telling history.

I like to begin at the other end, and to work forward and upward. I would tell the story thus:

There was a boy whom we will name Luke Varnum. He was fifteen years old, and he was lame of his left foot. So when every other boy in Number Five, and every man, old and young, shouldered his firelock and marched off to join General Stark,

and go and fight the Hessians at Bennington, Luke was left at home. He limped out and held the stirrup for Lieutenant Chittenden to mount, and then he had to stay at home with the babies and the women.

The men had been gone an hour and a half when three men galloped up on horseback. And Luke went down to the rails to see who they were. "Is there nobody here?" said one of them.

"Yes," said Luke, "I am here."

"I see that," said the first man, laughing. "What I mean is, is there nobody here can set a shoe?"

"I think I can," said Luke. "I often tend fire for Jonas. I can blow the bellows, and I can hold the horse's foot. Anyway, I will start up the fire."

So Luke went into the forge and took down the tinder-box and struck a light. He built the fire, and hunted up half a dozen nails which Jonas had left unintentionally, and he had even made two more when a fourth horseman came slowly down on a walk.

"What luck," said he, "to find a forge with the fire lighted!"

"We found one," said Marion, "with a boy who knew how to light it." And the other speaker flung himself off the horse meanwhile.

And Luke pared the hoof of the dainty creature, and measured the shoe, which was too big for her. He heated it white, and bent it closer, to the proper size. "It is a poor fit," he said, "but it will do."

"It will do very well," said her rider. "But she is very tender-footed, and I do not dare trust her five miles unshod."

And for pride's sake, the two first nails Luke drove were those he had made himself. And when the shoe was fast, he said: "Tell Jonas that I het up the forge — and put on the shoe."

"We will tell him," said the Colonel, laughing, and he rode on. But one of the other horsemen tarried a minute, and said, "Boy, no ten men who left you to-day have served your country as you have. It is Colonel Warner."

When I read in the big books of history how Colonel Warner led up his regiment just in time to save the day at Bennington, I am apt to think of Luke Varnum.

When I read that that day decided the battle of Saratoga, and that Saratoga determined that America should be independent, I think of Luke Varnum.

When I go to see monuments erected in memory of Colonel Warner, and General Stark, and even poor old Burgoyne, I think of Luke Varnum and others like him.

And then sometimes I wonder whether every man and boy of us who bravely and truly does the very best thing he knows how to do, does not have the future of the world resting on him. If it be so there are, all unknown in the world, a good many persons like Horatius Cocles.

THE MAKING OF PICTURES.

BY SARAH W. WHITMAN.

II.

HOW THE ARTIST GETS "MATERIAL."

IN the making of pictures the first practical consideration is the *maker*; that is the artist, by whose thought and labor pictures are produced. But the artist must have "material" with which to work, and for this it may be said broadly that two things are necessary; the world of objects, and the power to represent these objects with intelligence and feeling. This means long and devoted labor, whether in the schools or in more casual and personal ways, and it is never labor done; the study of art begins and goes on and has no end, for there is always more to know.

So far as the beginning is concerned, let us take by the hand the boy who wishes to become an artist, and go with him in his search for the where-withal of art. First, he must learn how to draw; and for this purpose he cannot begin too soon to try and represent the thing he sees. Everything he sees, so far as the simple and familiar objects which surround our daily life are concerned, the dog, the cat, all the things which move, as well as all the things which stand still, the trees and the fences, the cups and saucers — all are interesting, all are instructive. Of course they may look ridiculous when first drawn, because to begin with children think they can draw a thing till they try; and then they find that before one can draw well, the eye and the mind and the hand must all be trained. The eye must be trained to see, the mind to understand, the hand to act. These, the eye, and mind, and hand, are our tools, which must be brought by constant exercise into splendid working order. When a child draws a picture of a ship and leaves out the bowsprit, or makes the masts too short, he has not really seen the object he attempted to draw. He thought he saw it; he did see part of it; but he failed to see all of it. Only the eyes which are constantly looking can learn to see perfectly. It was once said to an artist who made very beautiful pictures of animals, that the cows he painted were masterly. "That," he replied, "is because I have made two thousand studies of cows!"

Our art-student will need long-continued study in schools, and under the direction of a master. In America more than in Europe is this necessary, because here we have so little of the best art-work

round about us. The great examples of painting, sculpture and architecture do not surround us here, teaching their silent lessons, witnessing to beauty, and revealing the methods by which great artists achieved success; and there is great loss in this, for in all departments of learning, what has been done is a guide to what there is still to do — the past as well as the future has its voices of inspiration. One must look to the schools and museums to make good this loss, so far as possible; and in all our large cities there are excellent opportunities for instruction. In New York the Art Students' League supplies most admirable instruction — and in Philadelphia and Boston the art schools are under the direction of the trustees of the Museums of Fine Art. These schools provide excellent teaching, models and casts, at a very low rate of cost, twenty-five dollars to fifty dollars a year; the only provisions being that students shall give very close attention to their work; working every day, or nearly every day, and that they shall be able to pass certain annual examinations; one there will be taught what may be called the grammar of drawing. By and by we shall consider the various ways in which, technically, the artist can work; but whether he is to paint in water or oil, or in whatever direction, the grammar is the same for them all, and this grammar is studied mainly from a text book which is not a book at all, and is called the human figure!

If you should go into any art-school, you would find most of the students at work "drawing from casts;" that is from little models in plaster or clay, representing parts of the human body — the eye, ear, head, leg, hand or foot — and these models are generally found to be made from some famous sample of Greek or Roman art. Very slowly, step by step, the beginners learn to understand these various parts of the human body, so far as its outward appearance is concerned; and after much practice on parts, they will be encouraged to draw the whole figure, for, I repeat it is on a careful study of the human figure that the knowledge of drawing is built. After drawing from casts, comes drawing from the living model; but you see it is still the same thing. There are many reasons for this, which will make themselves felt the more you see of good pictures; but it may be said that, as in other ways, the most interesting study of mankind is man, so here a knowledge of the human form is essential to a complete and competent knowledge

of art. It makes no difference what one intends to paint — landscape, still-life, or decoration — “draw the human figure” is still the first rule of practice; for as the larger includes the less, any one who has mastered the complicated and beautiful forms of the human figure, will find all other forms easy to him. Michael Angelo was so well aware of this, that to obtain such priceless knowledge he lived in absolute retirement for a period of ten years, during which he studied with so great devotion that when he came forth, he had the power to represent whatever he chose, and to do this with such freedom and rapidity, that when he was called upon to paint the ceiling of the Sistine Chapel in Rome, he did the work in less than a year and a half, although there are hundreds of figures there drawn with matchless skill, and though it has almost incredible richness and beauty.

Together with exact and faithful drawing from models which the student will be required to do, will come practice in many other directions. He will be told to make “memory sketches;” to represent, that is, something he has seen and can remember, so as to give an intelligent idea of it. There will be exercises in “composition;” for which a subject will be given out perhaps, and then the student will need to use his knowledge and his imagination to illustrate the subject happily. He will be told to make elaborate studies to-day, and quick sketches to-morrow; and the difference will be that in the first the object will be to represent whatever is drawn as fully and completely as possible; while in the second it will be necessary to select what are called the *essential elements*; as for instance that an orange should be round, soft and yellow; that the line of the sea should be horizontal and distant; that a sailing ship should go with the wind.

William Hunt used to ask his pupils to *run past* an object, either in the room or the street, and then draw what they could remember of it! In this way one learns to observe quickly and to remember the salient points which give character to an object.

In addition to the regular classes in the schools, he will find extra classes made up among the pupils for drawing in the evening, or in spare hours. Perhaps one of the members will “pose” for the others in costume, letting them make half-hour sketches, and there will be frank comparison and criticism of the work done. This indeed is one great point in all class-work — the instruction one gets from work done by others, be it bad or good.

Let it be remembered, also, that student and critic alike will do well if they think of the *meaning* of any picture first, and only secondly of how that meaning is expressed; for the value of work consists in its matter above all things, and a poor idea well expressed is like a knave in fine clothes, the less to be tolerated for his deceitful appearance.

When the student has become expert in the drawing of objects, he will be allowed to use *color*. Not till then; for the reason that while he is learning the variety and nicety of form, it is best for him to work only in black and white, not attempting the elaborate and difficult task of studying color also. Perhaps if you have never thought of all that is involved in this study, it will help you if you remember one simple fact; namely — that everything in the world is of *some* color; and the artist must know how to represent each object in its appropriate tint, and to do this rapidly and harmoniously. In all this vast number of shades it is quite impossible to give a name to each; the eye only can discriminate — and you will see how essential it is for those who look at pictures, as well as for those who paint them, to cultivate their power of seeing what colors there are in the world of nature, so as to be prepared for the world of art, and to be able to criticize it justly and intelligently.

In the chapters which are to follow on painting in oil and water color, I shall try and tell you carefully how paints are used; and what the methods are of different schools of art. Generally one begins with black and white paint only (which is called “monochrome”) so as to learn the use of the pigment; then a few colors, and so on. It is also of great value to make copies of fine pictures; so as to understand how paint is managed by the masters of painting.

In the Museum of Fine Arts, in Boston, and in the cities, students are allowed to copy many of the works in the galleries; and an excellent method of improving this opportunity is to make studies of parts of large pictures, for the main point is not to copy the work as a whole, but to learn from each and every part technical details of treatment.

After devoted study the art student will be able to represent objects in pictures, with due reference to all their qualities. With pen or brush he will portray form, color, texture, weight, light, shade, atmosphere; and not these things separately, but these things all at once, and with relation to each other.

If the student, after faithful work in the schools, can visit the master-pieces of the Old World, happy will it be for him. If he has real originality, he will be helped and stimulated by contact with noble standards and enduring examples. He will find that whatever is to have permanent value must not only be clever, but it must be profoundly serious, faithful, brave. In the presence of Titian’s “Assumption” or Michael Angelo’s “Slave,” under the dome of St. Peter’s or in the melodious aisles of St. Mark’s, one parts with many prejudices of youth and ignorance, with commonplace satisfaction in poor achievement, with the stupid impression that anything worth doing is *easily* done.

A word more. It must not be forgotten that while the student who wishes to be an artist is learning

to draw and to paint, it is essential that he learn a great many things beside. Far from being ill-educated in other respects, the artist should be better educated than most men. History and literature, all sources of knowledge, are of vast importance to him, for they serve to develop the growth and fertility of his mind; and the mind and

heart of an artist are the motive power of all his work. Pictures may be painted without either intelligence or feeling; but you will not need to be asked how much they are worth to the world. Indeed, the fundamental "material" of an artist is his sentiment and his ideas; he learns everything for the sake of being able to express these.

ENTERTAINMENTS IN CHEMISTRY.

BY HARRY W. TYLER.

II.

THE GASES WHICH FORM THE AIR.

AN invisible gas was the subject of our first chemical experiments. We shall now deal with a mixture of several gases, which envelopes the whole earth and is essential to all life — the air we breathe.

We know that it is odorless, transparent, and nearly colorless; not quite, however, for it gives to distant objects its own blue tinge.

We know also, from a former experiment, that it is somewhat lighter than carbonic acid gas; and yet there is a weight of fifteen pounds of air over each square inch of the earth's surface.

We will now repeat the lime-water test. If we shake some lime water with the air in a bottle or jar, it remains clear, but if we let it stand long in the open air, or if we blow much air through it with a pair of bellows, it becomes slightly cloudy. Hence we conclude that air contains a little carbonic acid gas — actually about four parts in ten thousand.

Next take a dry tumbler, and pour into it some ice-water. You will soon notice, especially if the day is warm, that the outside of the tumbler becomes wet. This water must have come from the air. Warm air holds a varying amount of water in the form of invisible vapor; cold air holds much less. The cold tumbler chills the warm air around it, so that it will no longer hold all its water-vapor, and the surplus is deposited or precipitated upon the glass. Nature performs this experiment each night when the earth cools more rapidly than the air, and dew in summer and frozen dew, or frost, in winter, is the result. Clouds are similarly formed by the cooling of air which contains much invisible water vapor, though so far above us that we cannot well study the process. In brief, cold squeezes water from the air, as your hand does from a wet sponge. Greater cold condenses the cloud-mist into drops, and then we have rain, hail and snow. But water-

vapor, like carbonic acid, forms only a trifling portion of the atmosphere. We might, indeed, almost consider them both as impurities, though they are always present in natural air.

We will now take a large glass jar, lower into it a short lighted candle, and cover the mouth to exclude air currents. You will note that some moisture is deposited on the interior of the jar, but this gradually disappears. The candle smokes a little, burns feebly, flickers, and finally goes out. The candle and its flame we shall study later; what concerns us now is the gas, colorless and odorless — except for the smell of the candle — which fills the jar. It cannot be air, for the candle will no longer burn in it. We remove the candle, and test the contents of the jar by pouring in a little lime water and shaking. It quickly becomes cloudy. Thus we know that the burning candle has changed the air, or some one of the gases which compose it, into carbonic acid. That part which is thus changed, which is essential to burning, and indeed to all animal life, is a gas called oxygen.

Our next experiment calls for a little stick-phosphorus; this you will get from a druggist. Phosphorus should be kept and cut under water, and touched only with a knife or pincers. If handled in the air it is liable to take fire and burn whatever it is in contact with. Now take a large deep dish or basin half-full of water. Insert in this a small cup, so that the bottom shall project above the water; on this place a piece of the phosphorus as large as a pea, light it, and quickly lower an inverted glass jar around the cup, into the water. The phosphorus burns with a brilliant light, and emits dense white fumes which soon fill the jar. After standing for some time, these fumes disappear, and only a colorless gas remains. But this no longer fills the jar; water has risen inside and occupies about one fifth of the space; this represents the volume in the original air of the oxygen which has been withdrawn in the burning.

The white fumes of the burning phosphorus cor-

respond to the carbonic acid formed by the candle, but in the latter case the gas remained in the jar, while in the former the solid smoke is soon entirely dissolved out or absorbed by the water, which consequently, from the pressure of the outside atmosphere, rises to fill the place of the used-up oxygen.

Now remove the inverted cup, taking care not to raise the jar out of the water; then cover the mouth of the jar closely with a small plate or saucer, and quickly invert and remove it from the dish. If now you lower a burning match into the jar it is extinguished, but if you try to pour the contents into a

tumbler upon a flame, or upon lime-water, it produces no effect.

Thus our gas, is neither air nor oxygen, for it extinguishes the flame lowered into it; nor is it carbonic acid, for it does not cloud lime-water, and is not heavier than air. It is a new gas, which forms nearly four fifths of the air, and is called nitrogen.

We have now ascertained and examined all the essential constituents of air. Numberless analyses have shown that oxygen and nitrogen are mixed in nearly the same proportions all over the world, while the carbonic acid is somewhat variable in amount, and the water-vapor far more so.

SEARCH-QUESTIONS IN AMERICAN LITERATURE.

BY OSCAR FAY ADAMS.

II.

CHARACTERS IN POETRY AND FICTION.

21. In what romances are to be found the following names of characters? Paul Fleming, Miles Coverdale and Hepzibah Pyncheon.

22. Of whom were these lines written?

To them the sun's warm beams were shafts of fire,
And the soft south-wind was the wind of death.
Away they flew, all with a pretty scowl
Upon their childish faces, to the north,
Or scampered upward to the mountain's top,
And there defied their enemy, the Spring.

23. What poetical heroine rode home from her wedding on "a snow-white bull, obeying the hand of its master?"

24. In what poem is a certain person thus described?

Revealing with each freak or feint
The temper of Petruchio's Kate,
The raptures of Sierra's saint.

Explain the allusions.

25. In what famous novel is Harvey Birch a prominent figure?

26. In what poem is the narrator supposed to watch the battle of Bunker Hill from a church belfry?

27. In what poem is it said of one that

He parted in twain his single crust,
He broke the ice on the streamlet's brink,
And gave the leper to eat and drink?

28. Of what novel is Mary Scudder the heroine?

29. In what books are the following characters prominent? Mrs. Potiphar, Pomona, Sam Lawson, and Gifted Hopkins.

30. In what poem is this description of a woman?

Bright-eyed beauty once was she,
When the bloom was on the tree.

31. To whom do these lines relate?

Beverly bells,
Ring to the tide as it ebbs and swells!
His was the anguish a moment tells—
The passionate sorrow death quickly knells.

32. What heroine thus declares her love?

I will no longer conceal what is laid upon me to tell thee;
I have received from the Lord a charge to love thee, John
Estaugh.

33. In what famous short story is this reference made to its heroine? "A hammock is very becoming when one is eighteen, and has gold hair, and dark eyes, and a blue illusion dress looped up after the fashion of a Dresden china shepherdess."

34. Of whom was the following first said?

None knew thee but to love thee.

35. In what poem is it said of one that he

had the skill
To know that Heaven is in God's will,
And doing that, though for a space
One heart-beat long, may win a grace
As full of grandeur and of glow
As princes of the chariot know?

36. What hero of a noted humorous poem is distinguished by his attempt to fly?

37. In what books are these characters? Lucarion Grapp, Donatello, "Gem" and Dakie Thayne.

38. Of whom was the following said?

She never was a child to us,
We never held her being's key:
We could not teach her holy things:
She was Christ's self in purity!

39. In a certain notable short poem a man whose life has been spared by the father of the man he has killed is afterwards slain by the wife of the latter. Name the person and poem.

40. What heroine relates that "Mr. Rawjester threw a flat-iron at my head. I retired calmly"?

DAYS AND NIGHTS IN THE TROPICS.

BY DR. FELIX L. OSWALD.

CHAPTER XI. (*Continued.*)

THE HACIENDA DEL MONTE.

MAYBE you dropped the handkerchief and the Parson picked it up," suggested the Mayoral.

"That's no excuse at all," cried the old lady; "it's a cambric, embroidered, and he should know better than to stick it into his mouth. I have to give him half a mark anyhow. Where's my handkerchief? Give it up now! Do you hear? Give me that" —

She had to wrench it out of his jaws, and the moment she let him go, the Parson sprang away and fled to the other end of the room, where he tried to squeeze himself behind a bureau.

"No use squealing and trying to hide yourself," said the Señora, "I can't help it, I have to mark you," and going to the bureau she took out a copy-book and made the requisite entries.

"Hallo, what's this?" cried the Captain. He had put his fork into a piece of banana-dumpling and was just going to carry it to his mouth, when one of the "bush-babies" mounted his chair from behind, snatched the morsel out of his teeth and fled with a squeal of triumph.

"Run, Juan! look them both up!" cried the old lady. "I hope you'll excuse the inexperience of these youngsters," said she, "they do not know any better. But what puzzles me is the recklessness of the old ones; they often don't seem to make any allowance for a person's feelings, and I am afraid that some of them have actually no principles at all. Our Parson here sometimes forgets himself, but he shows at least that he is sorry for it, if he does anything amiss." During the chase after the bush-babies the Parson had stolen out of his hiding-

place, and seeing the coast clear, he darted into the open hall, and making a side spring to the left, shut the door with a loud slam.

"Run, Juan! fetch him back this moment!" screamed the Señora. "I'll teach him manners. Is that a way to behave?" said she, when Juan returned with the struggling offender, "and before strangers, too? No, I can't let you off this time; I have to give you a full mark." The monkey hung his head. "And right after I warned you," continued the old lady. "Now you had better look out; if I catch you again, I — oh, the wretch!" cried she, and before anybody could interfere, the Parson had snatched a banana from the table and bolted out of the open window.

"It's no use, madam," laughed the Mayoral, "it's getting worse the more you meddle with it." The old lady made no reply, but marched straight to the writing-desk, and judging from her determined look, I fear that the Parson got two full marks of demerit.

The next day we intended to interview the natives of a little Indian village at the river-shore, where they cultivated various kinds of strange roots and herbs, and a species of trees that were said to yield more oil than olives. But before we started, the Mayoral asked us to take a look at the plantation, and especially at the monkey-house, where the various pets found shelter in rainy weather. Some of them seemed to make it their general lodging-place, while others preferred to bask in the open sun or make their headquarters in the adjoining trees. About twenty of the lodgers were at home; all natives of the neighboring forest; but what a contrast in their dispositions! The lank spider-monkey behind the haystack had ensconced himself among a litter of half-grown puppies, and caressed them with such tenderness that their

mother had become reconciled to his presence and permitted the puppies to treat him as a kind of a responsible relative, for whenever a pig or strange dog approached their couch, they would take refuge with their long-armed friend, whose mild reproaches kept off the intruders without exasperating them. The Ateles, or spider-monkey, can be frightened into fits; but it would be wholly impossible to make him "mad," or provoke him to active resistance. If you maltreat him, he tries to get out of your way; if you prevent his flight, he will crouch

down and shield his head with his arms, but his only protest is a sort of deprecatory mumble, and he would rather die than use his teeth in self-defence. And yet the Ateles on the Hacienda del Monte was the bugbear of all strangers, especially of ladies and small boys. His love of company was so passionate, that in hopes of finding a playmate, he would chase a boy across fences and ditches and scare him out of his wits—all for the purpose of shaking hands with him and inviting him to join him in a game of romps.

(TO BE CONTINUED.)

ALL THE WORLD ROUND.

[Questions concerning China and the less-known countries will be answered in this department by Mr. Yan Phou Lee and his assistants. Address all inquiries to Mr. Yan Phou Lee, Yale College, New Haven, Conn.]

[When I was at Lake View in August, at the New England Assembly, and having a "real nice time" telling the children about China in the headquarters of the C. Y. F. R. U., one day I was accosted by a bright little girl who wished to "know what people ate in China and whether those dreadful stories about eating rats were true." I answered as well as a few words would serve me, but did not satisfy the curiosity of the eager inquirer. Later, I devoted a half-hour to talking about the "Daily Food of the Chinese" to some forty boys and girls; and here I repeat the matter for the sake of others curious to learn the truth—trusting a little natural indignation and plain speaking may be excused to me. Y. P. L.]

Americans are fond of wonderful stories. Nothing pleases them more than to hear something revolting or strange about other people. Nations and races who resemble themselves are not worth attention. Hence, travellers—knowing fellows, all of them—possibly find it profitable to startle them with accounts as marvelous as they are false. Not that these accounts are always wholly untrue, but that solitary instances and occurrences are magnified to represent habits and customs of a whole people. Belonging to this class of accounts are those relative to the use as food in China of certain animals. I find that many Americans believe that dog-soup, cat fricassee and rat *à la mode* are dishes to be found daily on every table in the empire. The fact is that there are some peculiar people in China as elsewhere, credulous and superstitious; and some of these believe that the

flesh of those animals I have mentioned possesses medicinal properties. For instance, some silly women believe that the flesh of rats restores the hair. Some believe that dog-meat and also cat-meat, renews the blood, and quacks often prescribe it. Then it is also true that there are very poor people who have no money to buy proper food, and therefore subsist upon what they can get rather than starve. But I have lived fifteen years of my life in China, and have had experience at public banquets, social dinners and ordinary meals, and in company with all classes of people; but I have never seen cat, dog or rat served in any form whatever.

"What, then, do the Chinese eat"? Our gardens are prodigal of vegetables; our ponds, rivers and lakes swarm with fish; our farmyards are crowded with pigs, land fowls, ducks and geese; our fields are gilded three times every year with ripening rice. In some sections of the empire wheat and barley are produced; but rice is our usual substitute for bread. These articles make up the every-day food of the people. But there are certain things unknown to your tables that are considered great delicacies by everybody, one of which I have told you about already—edible bird's-nests. Another is sharks' fins. The Chinese keep very few cows, and it is true that beef is not esteemed as good as pork, and that many will not eat beef on account of religious scruples. Milk, butter and cheese are almost unknown articles of diet. The Chinese think it is robbing the calves to take the milk from the cows.

C. Y. F. R. U. COURSE.

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KING EDWARD VI.

WIDE AWAKE

VOLUME T



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THE CHILDREN OF WESTMINSTER ABBEY.

BY ROSE G. KINGSLEY.

III.

JOHN OF ELTHAM, THE YOUNG KNIGHT.

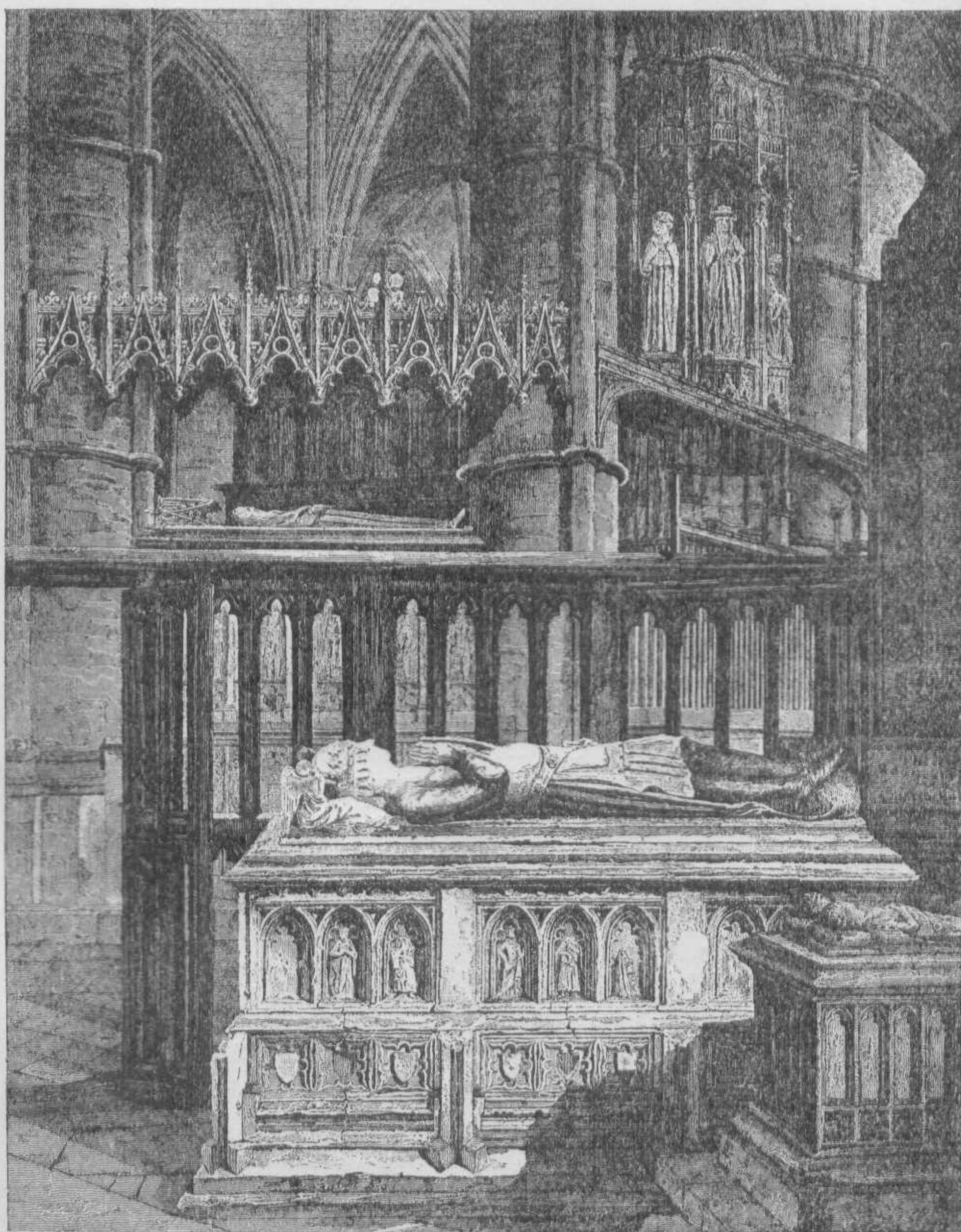
JUST within the gate of St. Edmund's Chapel lies the figure of a young knight in full armor. His hands, in their jointed gloves, are folded in prayer. His head, with the front of his helmet open to show the face, is gracefully turned to one side. His feet are crossed against a lion — a creature full of life, who looks round watching his young lord's placid face.

Who is this fair young knight, deemed worthy of a place in what Dean Stanley loved to call "the half-royal chapel, full of kings' wives and brothers"?

He is Prince John of Eltham, son of Edward the Second, created Earl of Cornwall by his brother, Edward the Third, who lies in state on the other side of the ambulatory.

Prince John was born on Ascension Day, 1315, at Eltham in Kent, "where our English kings had sometime a seat." The second son of Edward the Second and his wicked wife Isabella of France, the poor baby came into the world in sorely troubled times. The year before his birth his weak and worthless, wasteful and selfish father had been hopelessly defeated by the Scots under Robert Bruce at Bannockburn. And during the young prince's short life England was a prey to war without, intrigue and revolution within. The whole of Edward the Second's reign is a confused record of public and private strife. A horrible succession of famines laid waste the land. A fresh campaign against Scotland ended in a humiliating truce for thirteen years. The Queen, Prince John's mother, on pretence of concluding a treaty between her brother, King Charles the Fourth, and her husband, carried off Prince Edward, a child twelve years of age, to France. There she was joined by her vile favorite Mortimer; and neither threats nor entreaties could per-

suade her to return until she landed at Orwell in 1326 with a great following of exiled nobles, and proclaimed her son Edward "guardian of the realm." Deserted by all, her wretched husband was at last captured in Wales, and carried to Kenilworth, where he was deposed by the Queen and Parliament in 1327. He died a few months later, murdered at Berkeley Castle.



TOMB OF JOHN OF ELTHAM, ST. EDMUND'S CHAPEL.

His downfall was the sign for a fresh outbreak in Scotland. Bruce broke the thirteen years' truce; and the boy-king, Edward the Third,

marched against him only to meet with fresh disaster. The tide of fortune however was turning.



EFFIGY OF JOHN OF ELTHAM.

Isabella and her favorite were fast becoming odious to the nation, and in 1330 Edward, the future conqueror of Cressy, with his own boyish hands arrested Mortimer at Nottingham, and he was hurried to execution. The Queen-mother went into lifelong seclusion at Castle Rising in Norfolk, and the young king assumed the control of the affairs of the kingdom.

In 1328, the year after his brother Edward's accession to the crown, John of Eltham was created Earl of Cornwall in a parliament at Salisbury. The next year Edward journeyed to France to do homage for his lands there; and Prince John was made "Custos of the kingdom and King's Lieutenant while he went beyond the seas." It seems an extraordinary responsibility

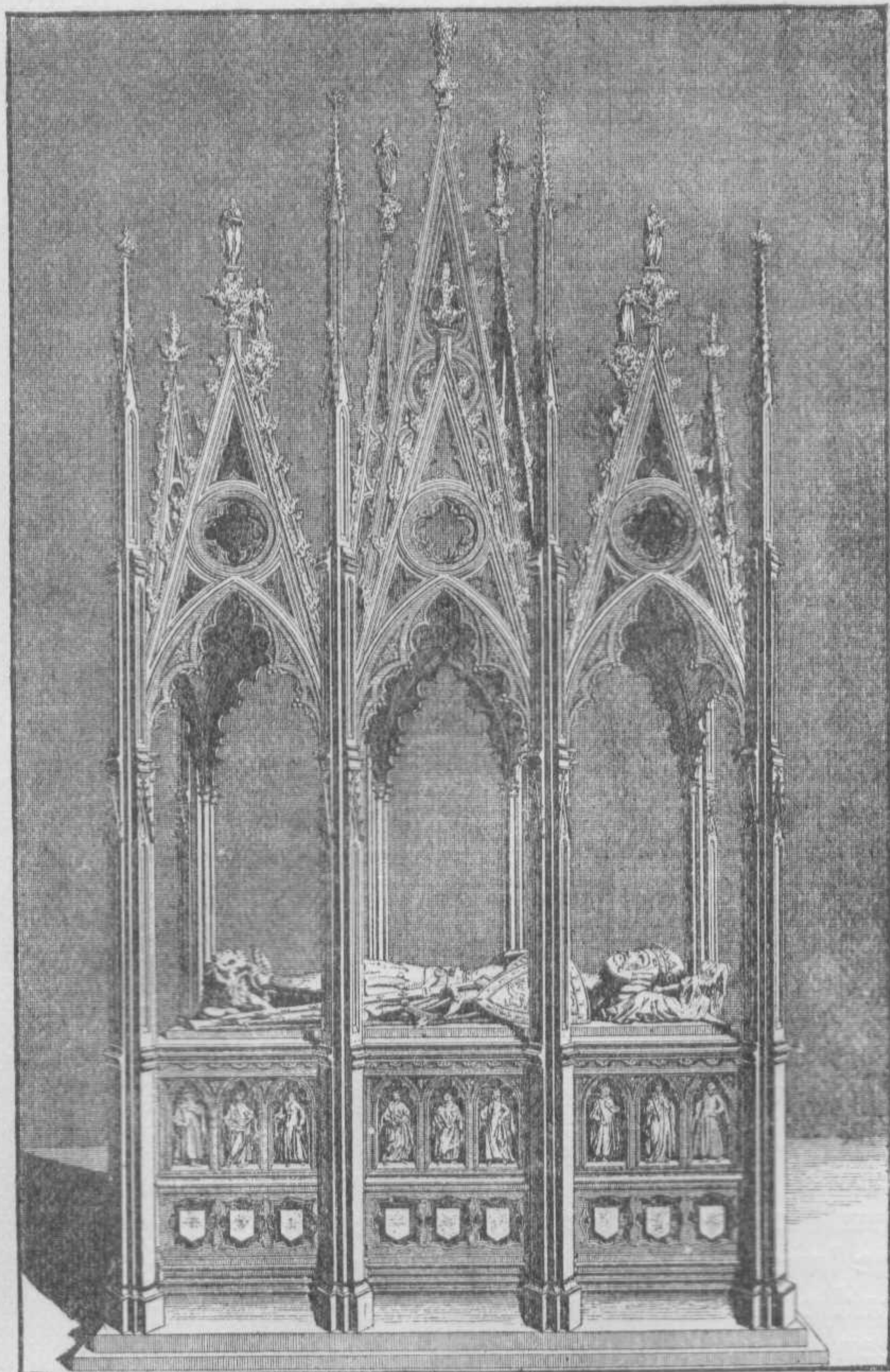
for a boy of fourteen. But those Plantagenets

were a strong and precocious race. Edward the Third was only eighteen when he took the reins of government into his own hands in 1330—the year that his eldest son, the famous Black Prince, was born. And the Black Prince won his spurs in the glorious fight of Cressy when he was barely sixteen. So there was nothing very unusual in the young Earl of Cornwall administering the government of the kingdom during his brother's absence in France, and again later on while he was in Scotland.

In 1333, when he was seventeen, proposals of marriage were made between John of Eltham and Joan daughter of Ralph the Count of Eu; and in the next year with Mary daughter of the Count of Blois: but both negotiations fell through. Perhaps Prince John, full of the fighting instinct of his race, preferred to follow his brother to Scotland, where a fresh war had broken out. In 1334 a third proposal of marriage was made between the Prince and Mary, daughter of Ferdinand, King of Spain. The agreement was drawn up and all was settled. The wedding however was

not to be. "For in the month following being in Scotland in St. John's Town (now Perth) he died in October, 1334, at his nineteenth year of age."

Prince John's body was brought from Scotland to Westminster, where it was solemnly interred in the Abbey. The funeral was one of extreme magnificence; the Westminster monks receiving as much as one hundred pounds for horses and armor offered as gifts at it. This practice of offering armor and horses at funerals, which sometimes were afterwards redeemed for money, was by no means unusual in the Middle Ages. At Henry the Fifth's burial, his three chargers marched up the nave to the altar steps behind his funeral car. And every one who has been in the Abbey must remember how the saddle, the shield, and "the very casque that did affright the air at Agincourt,"* the helmet "which twice saved his life on that eventful day," and still shows the dents of the Duke of Alençon's ponderous sword, hang in the dusky light above his chantry.



ANCIENT CANOPY OF THE TOMB OF JOHN OF ELTHAM.

Of all the tombs of that period in the Abbey, John of Eltham's is considered one of the most

*Shakespeare. *King Henry the Fifth*.

remarkable. He must have been the very pattern of a gallant young knight. His effigy of white alabaster impresses you at first with a sense of profound repose. Then when you look more closely you begin to see what a striking figure it is, and you picture to yourself the young Earl of Cornwall riding with his young brother, the king, at the head of their troops up through the bleak north-country, over the wild wastes of the Border, up to fair Perth lying on the Tay, where the fishermen draw in nets full of silvery salmon, among the moors—covered with pink and brown heather and swarming with plump grouse—that roll up to the mountains of the Highlands. We can see the very clothes he wore, for his effigy as a specimen of military costume is most interesting and valuable. He is clad in plate armor, and wears the cyclos, a curious garment cut much shorter in front than behind, “beneath it, the gambeson; then the coat of mail; and lastly the haqueton.”

The Prince’s sword-handle, ornamented with lion’s heads, is beautifully sculptured; and the shield has three splendid lions on it—the English royal arms—bordered with the French fleur-de-lis.

The tomb is surrounded by small, finely executed alabaster statues representing mourning kings, queens, and relations of the dead prince. Terribly broken though they now are—some are destroyed altogether, and all are headless—enough of them remain to show that they were sculptured with wonderful grace and spirit.

But the worst loss that the monument has sustained is in the exquisite canopy of carved stone which once surmounted it. It was highly colored and gilded, with an angel on a small spire crowning the centre.

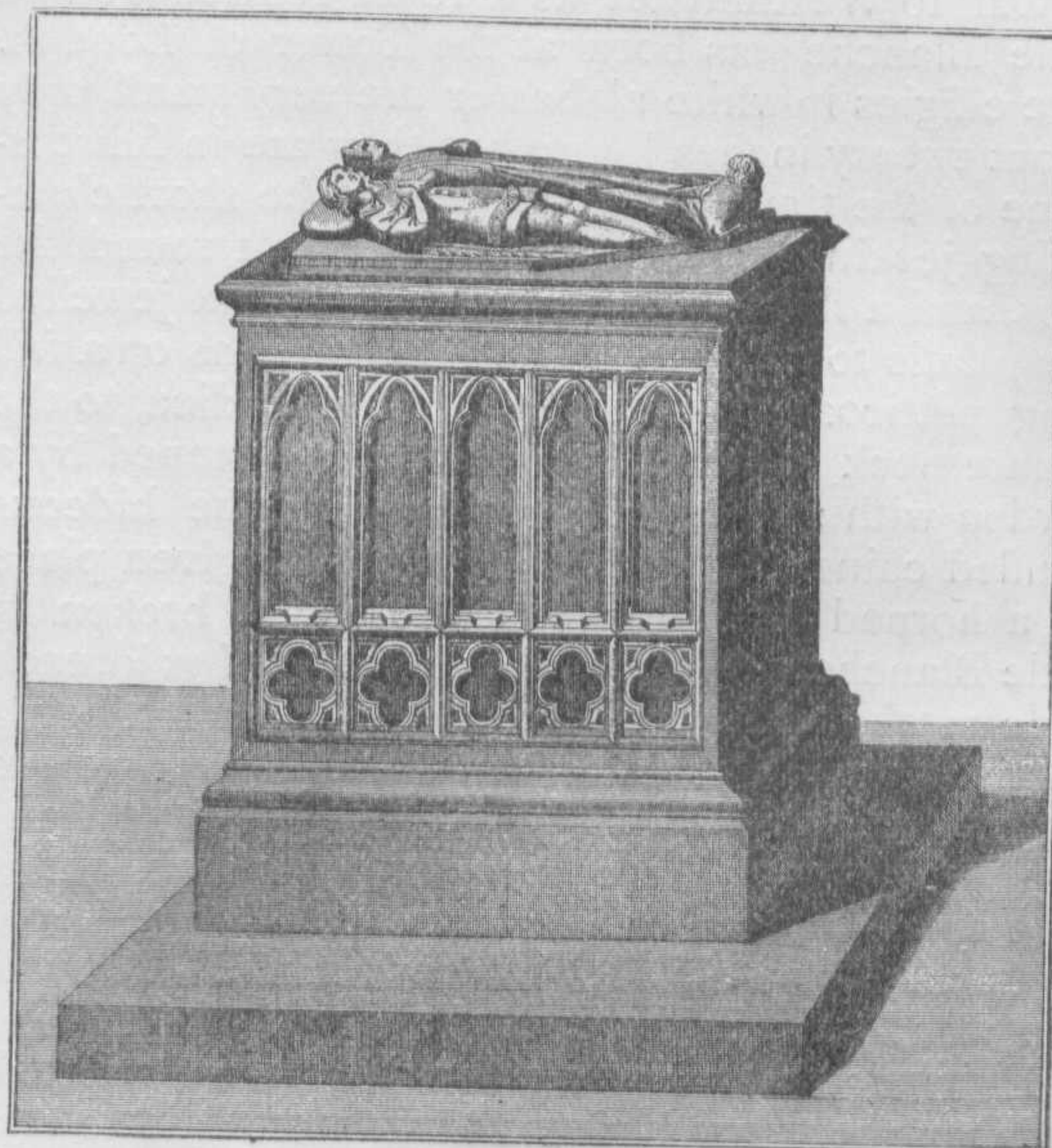
In 1776 Elizabeth Percy, first duchess of Northumberland, whose name will always be remembered as the patroness of literature, to whom we owe the *Percy Reliques*, was buried in the family vault of the Percys in the Chapel of St. Nicholas. In spite of her repeated desire that the funeral should be “as private as her rank would permit” a vast crowd collected, so

that the officiating clergy and choir could scarcely make their way from the west door to the chapel. Just as the procession had passed St. Edmund’s Chapel the whole of the screen, including the canopy of John of Eltham’s tomb, came down with a crash, which brought with it the men and boys who had clambered to the top of it to see the spectacle, and severely wounded many of those below. The uproar and confusion put a stop to the ceremony for two hours. The body was left in the ruined chapel, and the Dean did not return until after midnight, when the funeral was completed, but still amidst cries of murder, raised by such of the sufferers as had not been removed.*

The broken canopy was never restored. The Dean seems to have thought it was not worth while to take the trouble of mending it; and by his order

it was completely swept away. The fragments, it is said, found their way to Strawberry Hill, Walpole’s famous villa, where, at some time in the end of the last century, they were put up for sale, having been used as a chimney piece. Their subsequent fate I have not been able to ascertain.

It is difficult to believe that such an act of vandalism took place little more than a hundred years ago. The Deans of Westminster now are a very different race to the one who swept away John of Eltham’s beautiful canopy. With the beginning of this century a spirit of love and veneration for



TOMB OF WILLIAM OF WINDSOR AND HIS SISTER BLANCHE.

Westminster Abbey seemed to revive. Dean Vincent appealed to Parliament and persuaded the nation to repair Henry the Seventh’s chapel which was falling into decay. Under Dean Ireland free admission to the greater part of the Abbey was given to the people. Dean Buckland, the well-known geologist, carried on the good work by taking down some hideous screens which shut off the transepts from the choir.

He was succeeded by Dean Trench, the present learned Archbishop of Dublin, who inaugurated the special services on Sunday evening in the nave—that was a grand movement. And all this time public interest was growing more and more keen about the Abbey. New discoveries were being made by architects and antiquarians each year. But it was not until Dean Stanley succeeded the Archbishop of Dublin that the Abbey came quite to life. Dean Stanley’s memory which must always be present in the minds of those who have known him at Westminster, is specially bound up with my recollections of St. Edmund’s Chapel; it was one of his most favorite spots in the Abbey,

* *Memorials*, p. 352.

and John of Eltham's tomb one of those he most delighted to show to all his visitors. And this brings us back from nineteenth century deans to fourteenth century princes and the old tombs in whose histories we can find such inexhaustible mines of interest.

In 1340, two more young "royals" were buried beside John of Eltham in St. Edmund's Chapel. These were his nephew and niece who died quite young—William of Windsor and Blanche de la Tour—children of Edward the Third. The boy was born at Windsor, which was fast becoming a rival to Westminster as a royal residence; and little Blanche was born at the Tower of London. The effigies in white alabaster are very small, only about twenty inches long; but they are in full costume of the time. The boy wears the short close-fitting jerkin, with a wide jewelled belt round the hips, and a flowing cloak fastened with a jewelled clasp falls to his feet. The little girl has on a full long petticoat with a tightly fitting bodice, to the square neck of which her mantle is fastened by a cordon with a rose and two studs. The hideous muffled chins of the last century had given place to a horned headdress (the horns are broken in little Blanche's effigy) and a close net of gold, each wide mesh, through which the hair shows, being fastened at the crossing with pearls or precious stones. Blanche's feet rest against a little lion; but her brother's have been broken off obliquely. The tomb altogether has been cruelly used, and no traces of the children's faces remain. But who can wonder, when he sees the way in which John of Eltham's splendid monument has been mutilated.

When these two little children were laid to rest in the Abbey, their father was just beginning his great wars with France—the wars that lasted for a hundred years and only ended in Henry the

Sixth's reign with England's final loss of her French possessions. And six years after, in 1346, Cressy was fought and won by their brother, the Black Prince.

With the battle of Cressy, England entered upon a career of military glory, which, though for a time it proved fatal to her higher interests, yet gave her a life and energy she had never known before, and laid the foundation of that dogged love of fighting, which is not quite dead yet, if we may judge by the way British soldiers and sailors fought but the other day at El Teb.

At Cressy, too, Feudalism received its death blow, when the English churl struck down the French noble, and the despised yeoman "proved more than a match in sheer hard fighting for the knight." Though the nobles rode into battle as of old, at the head of their vassals and retainers, the body of the army consisted no longer of forced levies, but of stout Englishmen serving willingly for pay.

The earlier phases of Chivalry with its elaborate rules, its laws written and unwritten, were past long before Cressy. The great mediæval companies of knights, which made it one of the greatest powers for good or evil in Europe, had been broken up. The Crusades were over, and knights could no longer gain fame and honor by fighting against the Paynim under the banner of the Cross. But still it was in Edward the Third's reign that Chivalry entered upon its period of highest glory and magnificence unequalled. The Garter—the most illustrious order of English knighthood, was instituted by this king at Windsor, and he and his son—these greatest of the Edwards—were foremost to set examples of unsurpassed valor in many a deed of desperate daring; and Bayard "*sans pure et sans reproche*" was the ideal of the later chivalry.

SOUVENIRS OF MY TIME.

BY MRS. JESSIE BENTON FRÉMONT.

III.

WASHINGTON IN PAST DAYS.

THE lovely autumn weather made a pleasant friendly "half-season" for what was the resident world of Washington. The President and Cabinet lived there more steadily than now, and the Diplomatic Corps also. And there were then many pleasant families who were entirely

unofficial and who came there as families are doing so much now, because they liked the fixed order of society and leisurely life of Washington.

We had grown up there and felt it even more our home than St. Louis—you may have several houses but only one ever feels *home*, and this had grown to be that to us. Our house had been bought by my father from a Boston gentleman who had lived much in London, and who built it with thick walls and spacious rooms and beauti-

fied the ground in the rear, where grass and trees were framed in by high thick growths of ivy, and scarlet-trumpet creeper which covered the stables. The winter was always so crowded by ceremonious visits, dinners and such, that we absolutely needed this breathing time of preparation; and that no time should be lost from necessary winter-work of society, all our dresses were planned and each detail made quite ready. We had, too, long days of horseback and driving, and visits to friends living on their country places near by in Virginia and Maryland — Arlington, now a city of the dead, was one of these places. Then, also, we had the luxury of home evenings, when friends and neighbors could come in informally.

My father believed in working while he worked, and resting completely when at rest. His library on the floor above was his working-place. But after we assembled in the drawing-room before dinner, and until we separated for the night, it was life in common to which even the youngest was expected to contribute. No vexatious topic was to be introduced — this was the resting time. As children, when we forgot this wholesome regulation nothing was said at the time; but the next day we dined apart in the library and lost the privilege of making part of the family at table and in the evening afterward.

We had each our "settlement" special to ourselves for these home evenings. On one side of the fire in the large drawing-room, my mother had her table and candles with her knitting work and books. Endless fine woollen little garments grew under her beautiful hands without seeming to require attention. My father, on his side, had a larger table with the book then in reading and the evening mail. A tall "astral" lamp suited him — this was in the dark days before gas — but the shining silver candlesticks and snuffer-tray and the tall spermaceti candles always kept their place for my mother's use. We four sisters adopted the great square dining-table for our high shaded lamp, our work baskets and portfolios, and there our little world revolved.

Music was a serious study among us. We had the happiness of one noble contralto, and in another sister such gift of expression on the piano that it afterward made her a favorite guest of Rossini when she lived in Paris. At his Tuesday evenings he always had her play the *Sonate Pathétique* and the "Moonlight Sonata," and declared she was the only woman he had ever heard who could play Beethoven's music.

But in the evenings this would have interfered with talking, and it was not the correct thing then for the younger part of a family to direct the house. If any one came in who loved music, and asked for it, we were all glad enough to give it. General Dix, then Senator from New York, was

our near neighbor, as was also the Prussian Minister Baron Von Gerolt; both of these knew music well and always wanted it — while Mr. Buchanan and Mr. Sumner and Mr. Chase, also near neighbors and intimate friends, would have been greatly put out by the interruption.

General Dix had a house within a few doors of us, next to that of Frank Key — THE STAR SPANGLED BANNER — to which General Dix's famous order, "If any man attempts to haul down that flag, shoot him on the spot," belongs now as part. Each of these had delightful families with whom our friendships were for life.

Another unusual and charming family living close by, were the Ellsworths, who were "friends indeed" to Mr. Morse in the hard days when he could not get his idea of the electric telegraph launched. He was laughed at in Congress; his money gave out; his health was going, he was so worn out that his dead-white face and brilliant hollow eyes startled one. His first message, "*See what God hath wrought!*" was to the young daughter of these true friends; he might have added, "And what mountains are moved by the patient tender faith of women!" For these ladies went among their friends whose husbands were in Congress and *made* them understand, while they in turn brought attention from those who could decide on "*An experimental line to Baltimore.*"

Thirty miles — and now how it girdles the earth!

The Panama Railroad — the overland "emigrant route" — the surveys for railways to the Pacific — these and other measures then far in advance of the public mind had their fireside growth among us, and brought us delightful acquaintance with some men of wide travel; among them "Central-America-Stevens" as he was called from his latest journey. My mother had greatly liked his earlier books on Arabia and the Holy Land, and when the Panama-business-talk was through he would go from my father to my mother for their pleasant talk. Coming to us, later, in his quick boyish way and demanding tea and much cake, and telling us we must be very good to him for he was to be sent to the Isthmus to die — as he did, from too long stay there while superintending the building of the Railroad.

Much of this talk and planning was done in this less crowded time and we had the advantage of hearing; so our minds grew to great ideas, and also to a comprehension of the weary long work and sublime patience involved in their carrying out.

As this was before sewing machines (as well as before telegraphs and gas) we had always some hand-work that was taken up each evening — fine little ruffles of linen cambric, "edgings" to cut out the points and scallops from, or fine flannels to be worked in scallops — things that went in aid to the real sewing woman (our human machine), and

gave us use for our hands as we listened. The old mahogany furniture of the dining-room was English and had been bought with the house; the dancing lights reflected in its dark polished surfaces from the wood-fire, the shaded lamp and the silver of the tea things, the fragrance of the large plants of rose-geranium and the delicate bitter of chrysanthemums, all blend in my memory with this talk of the tropical work of the Panama Railroad.

In this settled order of our living, how could I see that so soon after *I* should cross that deadly Isthmus? to be detained many weeks by illness in Panama where Stevens — dying, as he had known he must — came daily, as he said, “*to take my chill with you.*”

How reviving to us was even the memory of cool autumn evenings! Palms, and waving cocoa-trees, and endless-summer-seas, *are* beautiful, but they grow no tap-root in the affections such as our changing seasons give. That “social life ceases above eighty degrees and below thirty degrees” is very much of a truth, I think.

General Dix was an artist, a musician, and open to every good and beautiful impression. His home-life was singularly attractive. Only their intimates knew the charm of wit and fancy in Mrs. Dix who was very reserved, always. I found her rooms so filled with beautiful flowers one day (in New York and since the War) that she answered my look — “No, it is not *to be* a party, but *yesterday* was our fiftieth anniversary — our golden wedding” — and with her still handsome face lit up with gentle fun, “We have had our celebration and the newspapers have not found it out!”

We each and all liked one another and were really intimate in those old Washington days. One evening I went in to tell Mrs. Dix, who had taken much interest in the case, that a man I was greatly interested for could not get his pension because he had not been a regularly enlisted soldier when wounded. The man, a Canadian Frenchman, had lost the use of a leg from a gunshot wound on an expedition under General (then Lieutenant) Frémont. Before this could be quite cured another accident completely disabled him — “*Je ne suis pas clere,*” said Alexis to me, “*il faut mourir de faim.*”

General Dix had a visitor who did not make any comment on our talk of the poor Canadian, but when he left the General returned from the hall to say that that gentleman was the Chairman of the

Committee on Pensions — Preston King of New York; that he had asked him to say to me that if I would write out the man’s story, briefly, as I had been telling it, he would get him a pension. And in a few days it was all done. Because he was *not* an enlisted man it was made a little larger than the regulation pension, with back-pay from the date of the wound — two years.

Lifted from despair, with some hundreds in hand and a secured future, Alexis came to thank me, swaying on his crutches, tears covering his dark, thin face: “I cannot kneel to you — I have no more legs — but you are my *Sainte Madonne.*”

This is not the only gracious use of power I have met from Congress. The early friendships made in my father’s house with so many men of position gave me the position to speak, and on several occasions I have had the quickest kindest attention — for the famine in the South after the war, when a relief-ship to carry supplies was needed and at once granted by both Houses. I had written to one Senator and one Member of the House, and within a few days we had the ship, and with it the order for all the Freedman’s Bureau could supply; and again, in a case of long-delayed justice to officers who had resigned, but at the opening of the war volunteered for service, without any conditions, to find themselves unfairly placed afterward. This case was most honorable to the chairman of the committee having charge of it, but it is too long to put here. Enough that my appeal to his sense of right brought up the Bill which had for seven years been smothered in various committees; by his active work and the help of a charming woman who was in official power, we immediately secured full justice, back pay, and advanced positions to over thirty officers.

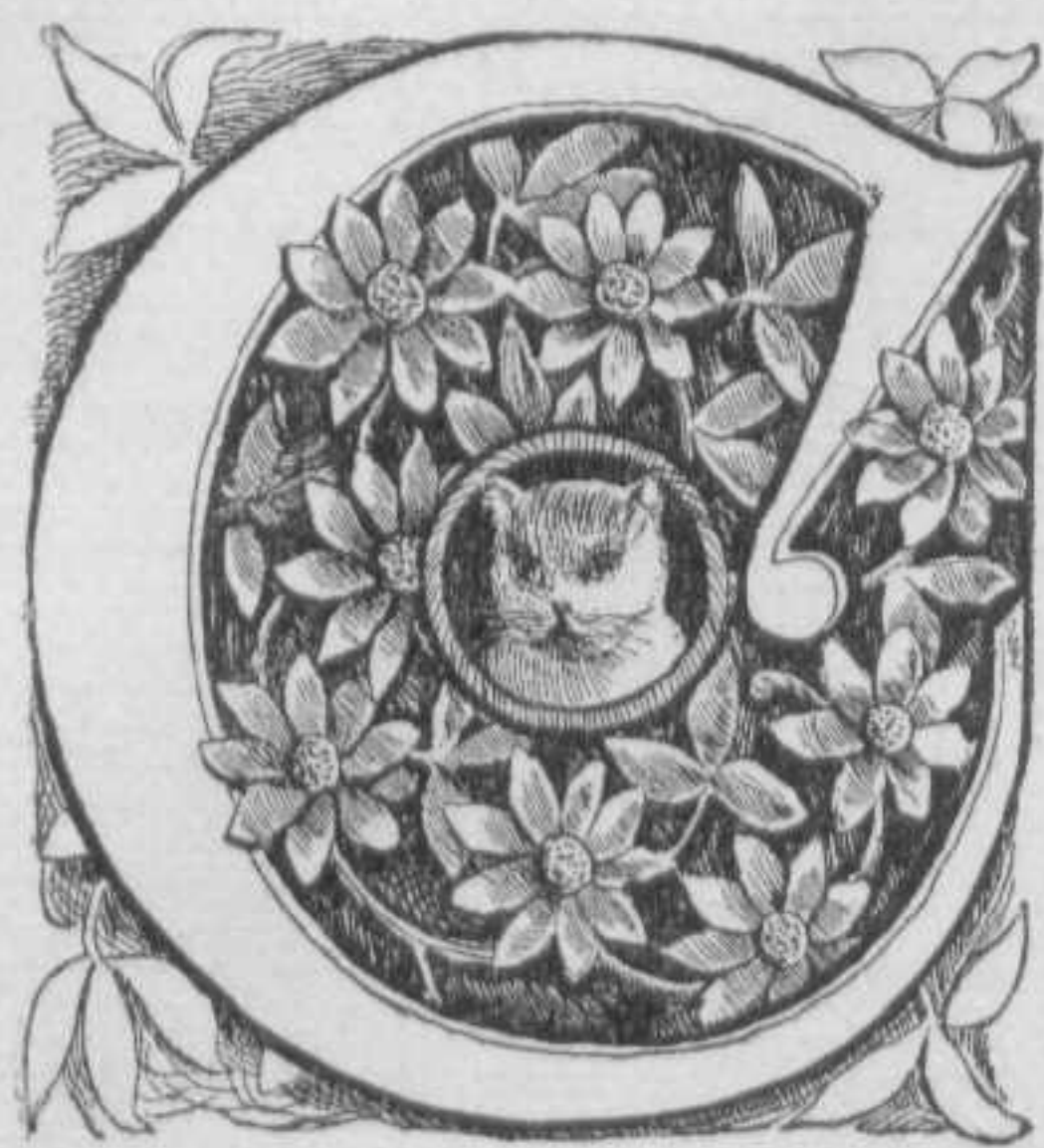
Judge Black of Pennsylvania, who had a rough wit but a kind nature, said once to me, “Your geese are all swans.” I told him he knew I *could* discriminate and had my own sharp experience also as guide. But there is so much told of what is unlovely and of bad report that I for one prefer to dwell only on what is good. In great trials of our country — the war, the yellow fever scourge in the South, great fires and wide spread calamities — the prompt thorough sustained generosity and good feeling of our people as a whole has been something to make the heart glad and thankful.

So I choose to be a poor artist and paint as Queen Elizabeth ordered: “leaving out the shadows.”

THE TEMPERANCE TEACHINGS OF SCIENCE.

III.—THE PARTS AND QUALITIES OF THE HUMAN SYSTEM.

BY PROF. A. B. PALMER, M. D., LL.D.



COMING to the inquiry as to the effects of alcoholics upon the human system, some statements seem necessary as to the parts and qualities of that system. The organs most concerned in the action of alcohol are the stomach, the liver, the heart, the kidneys, and the brain and nervous system—though all parts of the body are affected by it.

The *stomach*, as all know, is the organ into which is received our food and drink, and in which the food is chiefly digested and prepared to nourish the body. The food, thus digested, is largely absorbed, or soaked up, from this organ into the blood through the coats of the veins, and carried to the liver, where it undergoes farther changes, is converted largely into blood and mingled with it, and is then carried to the right side of the heart, which pumps it into the lungs, where it is acted upon by the oxygen in the air we breathe, changing it from the dark blood of the veins to the bright red blood of the arteries. This blood is then carried on to the left side of the heart, and from it pumped out through the arteries to all parts of the body. It goes from larger to smaller arteries, until it comes into some very small vessels called capillaries. It passes through these minute vessels slowly, and its nourishing particles are taken up into the different parts, affording them nourishment, contributing to their growth in young persons, and to the maintenance of the strength and activity of all persons and all parts.

The small veins then take up the altered blood which is not appropriated by the tissues, together with the materials which result from the wearing out of particles in the acts of life, and this blood is carried from all parts of the body, from smaller to larger veins, until it comes back to the right side of the heart and is again carried to the lungs, to be restored to arterial blood by the air; and so the process goes on perpetually during our whole life.

The fluids taken into the stomach are absorbed into the veins like the foods, which are all dissolved and brought to a liquid state, and these fluids are carried in the blood to the liver, and then to the heart and lungs.

Some of the foods and fluids swallowed pass out of the stomach into the intestines, are changed and

digested farther there, and are absorbed from this situation partly by the veins and partly by a special set of vessels called lacteals, and, like those substances absorbed from the stomach, are finally carried into the blood.

In the stomach the food meets with a fluid called the *gastric juice* secreted by the coats of the stomach and which dissolves and digests, or changes the food, and fits it for absorption, and for the farther changes in the system.

Shakespeare says, "the stomach is the storehouse and workshop of the whole body;" and the office of this organ could not be more briefly and accurately expressed.

The *liver* is also an important organ. It is a large, solid body, situated to the right of the stomach under the ribs, and it performs several offices. It changes the food carried to it, and converts a part of it into blood. It produces heat, by the chemical changes effected there, and prepares waste material in the blood for being carried out of the system; and it secretes bile. This bile is carried by ducts from the liver into the intestines, and is a material that is useful in digesting food that passes from the stomach into the bowels; and it promotes proper action of those organs. When the liver is changed in its structure or its action, the whole system is deranged.

The *heart* is one of the vital organs which must be constantly in action, or life will speedily end. Its office is to circulate the blood, and if this fluid fails to be sent to any organ, even for a short time, that organ ceases its action, and when a large number of organs cease their action, death occurs. When the heart acts improperly, more or less derangement results.

The *lungs*, again, perform an office which is immediately essential to life, and are called one of the vital organs. In the passage of the blood through the tissues it loses its oxygen, and carbon compounds are formed, which are injurious to the tissues; or, at any rate, this venous blood is not capable of sustaining life-actions in the organs and tissues. This venous blood constantly flowing into the lungs must be as constantly changed into arterial blood by the action of the oxygen of the air upon it. The union of oxygen in the lungs with carbon and nitrogen is a kind of combustion, and by it the heat of the body is kept up, while the blood at the same time is purified. If the lungs should cease to perform their office—if we stop breathing even for a few minutes—death will fol-

low. Anything which interferes with the proper action of the lungs, or hinders the purification of the blood and the addition to it of the proper amount of oxygen, interferes with all the functions of the body, reduces the temperature, and in various ways does mischief to the system.

The *kidneys* perform a very important office in carrying out of the body and the blood effete or worn-out materials that result from muscular and other actions, and from the changes of the foods taken. These foreign matters, if retained for a considerable time, are certain to poison the whole system, cause stupor, and generally convulsions, and always death. Anything, again, which interferes with the proper action of the kidneys deranges the whole body.

But the *brain* and *nervous system* is, if possible, the most essential — is certainly the most central, the most characteristic, and the most important part of the human being. It not only presides over and is essential to every action of the body, but is the special organ of the mind. Its proper conditions and actions are essential to proper thinking and proper feeling, to the existence of proper

moral qualities, and to the sustaining of proper conduct and proper social relations. A bad brain makes a bad man. It hardly needs to be said that anything which acts specially and injuriously upon the brain and nervous system deranges every department of the character and of the conduct, physical and mental.

The *blood*, though not an organ like the stomach or the brain, is a vital fluid, an essential medium of communication between all parts, the carrier of the food and the oxygen to all the tissues, and is the agent of nutrition, of growth, of maintenance, and of purification of the body — and this nutrition is the ultimate and essential life-action. When this ceases, death occurs, and when this is deranged, disease is present.

The Bible says the blood is the life of the body, and certainly anything that destroys the blood destroys life; and anything that deranges or corrupts the blood deranges the actions and corrupts the very source and agent of life.

We shall endeavor to show the action of alcohol on all these parts, and upon the system at large — upon body, mind, and character.

BOYS' HEROES.

BY EDWARD EVERETT HALE.

III.

ALEXANDER THE GREAT.

BOYS and girls are glad to see young people come forward well, when they read history. There are four or five people in the history of the world, who have set it forward in young life, and have shown that much may be entrusted to young life which is generally left to persons far advanced. Alexander the Great died when he was thirty-two; but he had wholly changed the history of the world before he died. Raphael died when he was thirty-six; Lord Byron died when he was thirty-six.

When I was a boy, every boy in college knew that William Pitt was in Parliament when he was twenty-one, was Chancellor of the Exchequer when twenty-two, and that he was Prime Minister of England before he was twenty-four years old. I remember a college poem of mine, written when I was only seventeen, in which were these lines:

Will youthful ardor youth's success permit?
Search through all history, find we only Pitt.

The lines were certainly unfortunate. For the

most interesting thing about this William Pitt is that he was son of the other William Pitt — that both father and son were prime ministers — the elder being the greatest minister England ever had. But what I meant, in the couplet, was that the younger was the only prime minister England had had so young. And this was true. There have been plenty of "royal favorites" as young, but they were not, strictly, ministers. I have lived long enough also, to know that it is a great pity for the world that there was more than one Pitt, and that this particular Pitt ever was prime minister. The world would be much better off to-day, I think, had he spent his life in making heads to pins, or in spinning cotton, as I believe he should have done on the crack theory of Political Economy.

To go back to Alexander, he and Raphael and Byron will always be favorites among young people. Young people feel that it would be a nice thing if the world were entrusted more to them. I remember that, a few years ago, some spirited boys engaged Faneuil Hall, in Boston, for a meeting to make a protest against the statute which prohibits them from voting in Massachusetts — where they are permitted to hurrah and carry torches.

When Alexander came to the front, this fascinating theory of youth was put to a critical test — and it succeeded wonderfully well. For so long as Alexander was very young, he succeeded. And he had passed thirty, that is, he had entered on what young people call middle life, before his great failure.

Alexander's life illustrates another thing — the good of having a first-rate father and mother, and the good of first-rate education. "He inherited from Philip," says Dr. Smith, "his cool foresight and practical wisdom, and from Olympias his mother, her ardent enthusiasm." These are excellent things to inherit. Ardent enthusiasm and cool foresight are a combination as good as one could ask, for a start on successful life. Dr. Smith adds, alas, that he inherited "ungovernable passions from Olympias, also." Some of us think that no passions are ungovernable. But it was the misfortune of poor Alexander that he did not know that Spirit, by whose alliance only, such passions are to be governed.

His mother was of the royal family of Epirus, in the northern part of what is now the little modern kingdom of Greece. Alexander was fond of claiming descent, through her, from Achilles. I do not see any reason for supposing that he was not right in this claim. What is certain is that her great-grandfather was King of Epirus; and the traditions of Achilles say that his son Pyrrhus, or Neoptolemus, was King of Epirus. Between Pyrrhus and Olympias would come six or seven hundred years — perhaps twenty generations. But there is no reason why the genealogy of the kings of that country should not be kept as well for those generations as the genealogies were kept for the twenty generations between Egbert King of England and the Wars of the Roses. Alexander certainly had a better chance to know than you and I have. And I offer this as a good rule in forming an opinion on any point of history — that sensible men, at or near the time of action, had many opportunities for knowing the truth which people cannot have one thousand years, or two thousand or more years away. This rule will seem commonplace, but it is, in truth, very generally scorned.

If I had to write the life of Alexander, in one hundred words, I should say that he had a good education, and profited by it. When he was only sixteen, Philip, his father, left him in charge of Macedonia while he was at war. Four years after, Philip died, leaving Alexander king. He was surrounded by enemies. But he marched North, and conquered the barbarians, South, and conquered the Greeks and then, with the aid of all of them but the Lacedæmonians, he overran Asia Minor, Syria and Egypt and conquered Persia. He afterwards marched into India, but did not remain there. He made Babylon his capital and died there at the age of thirty-two.

But when I asked my young friend, Tom Haldy, to write a life of Alexander, after he had been reading Plutarch for an hour, Tom produced this memoir, and I found he had used up his hundred words long before the young man came to his throne.

"There came a man called Philanicus who had a beautiful white horse, which he offered for thirteen talents. But when they tried him, he proved to be so vicious that no one dared to ride him. Then Alexander spoke up, and said that it was a great shame that they should lose such a beautiful horse for want of a man to ride him. The people all laughed at him, when he said that he could manage him better than any of them, and they told him he could try.

"Alexander walked up to him, and turned his head towards the sun, for he had observed that it was his own shadow that he was afraid of. He then threw off his upper garments and gave a



ALEXANDER THE GREAT.

spring into the saddle and started him at full speed."

To tell you the truth, I think Tom's method of writing history more entertaining than mine. And the reason why Plutarch's *Lives* have been read by almost all people who could read, now for fifteen hundred and more years since they were written, is that they are all crowded full of just such stories of separate incidents, well wrought out in detail. They do not undertake to give a philosophical view of the man's life, so much as to give some very vivid pictures of separate incidents in it. One of Plutarch's *Lives* is thus a sort of picture gallery, with several pictures of curious or important events. But a regularly-built biography of the modern fashion is more like a map, on which the various things

are put down in proper relation to each other. It is however, all the same, by no means so attractive at the first sight, and there is a certain reality given a picture to which no map can pretend.

Philip, the father of Alexander, had made such preparation as he could for the invasion of Asia. The Greeks had never forgotten the invasions by Darius and Xerxes. There was a permanent quarrel, indeed, between Greece and Persia. And you must remember that Persia held Asia Minor, and drew tribute even from the Greek cities on its Western coast. So that when Alexander crossed the Bosphorus to the field of Troy, he was in the same old contest with which in the *Iliad*, Greek history and poetry began—the history in which our friend Hector played his part so well. First, Paris crosses to Greece, and steals Helen. Then Greece confederates against Troy, crosses to Asia and destroys Troy. Then, after five or six centuries, in which there have been many raids, backwards and forwards, Darius makes the greatest raid of all, comes down upon the Greeks, and is defeated at Marathon. Ten years after, Xerxes tries again and is defeated at Salamis. The next year, the great Persian fleet is destroyed at Mycale. The march of the ten thousand, when the younger Cyrus attempts to take possession of the Persian throne, is a Greek effort to retaliate—so far as the ten thousand are concerned. This was seventy-nine years after Salamis; and sixty-seven years after this, Alexander pays off the Greek debt entirely, or begins to. He crosses into Asia in the year 334 before Christ, and thirteen years after, at the battle of Arbela, takes possession of the Persian Empire. These thirteen years distinctly changed the history of the world.

I remember that I used to wonder why when he had well-conquered Babylon, he never went home to Macedonia. The answer is, that he and his men were too much fascinated by Eastern luxury. The tide of Empire may take its way Westward, but the

longings for luxury always turn Eastward. You have heard Mr. Appleton's joke, that good Americans go to Paris when they die. You have noticed perhaps, that rich Californians go to New York and Paris and Rome to spend their money. So when Mark Antony took possession of Alexandria, Alexandria took possession of him. And, in just this way, when Alexander and his rough Greeks found themselves in the luxuries of Babylon, they were just like these unfortunate Americans, who will read these lines in the comforts and luxuries of Italy or Germany or France, and shudder when they find that I or any other cynic think they would be much better off at home.

When I was a schoolboy, there was a dialogue in the schoolbooks, in which Alexander was represented as a "Thracian robber." The boys stood in attitudes represented in a picture, and the dialogue ended by Alexander's saying penitently, "Alexander a robber? let me reflect." The piece was the outgrowth of a sort of sentimental philosophy which was in vogue a hundred years ago, and it will certainly not stand any fair criticism. Wherever Alexander went, he left something better than he found. He admitted Egypt into the circulation of the Mediterranean System by building Alexandria. He introduced India to the knowledge of the Western World. He made easy and systematic the communications between Europe and Asia. Thoughtful persons are used to say that in the time of our Saviour, Palestine was the very centre of the Old World. It was so. It was the place from which the Infinite Revelation of Absolute Religion could most easily go out to the world. It was so, because Alexander had established his empire. If it were only that he made the Greek language the language of the civilization of those centuries—in that single change Alexander would have changed history.

"The conquests of Alexander," says Mr. Samuel Eliot, "smoothed the way for the chariot wheels of the Gospel."

WAYS TO DO THINGS.

BY AMANDA B. HARRIS.

XXX.

MAKING APRONS.

AND why aprons? Does not every girl know about them already? To be sure; but the question came up one day among six or eight devotedly intimate schoolgirls about what they were

going to make for Christmas presents, especially for their mothers, and their grandmothers, and their sisters, and their aunts, who always liked best "some of your own work, my dear."

Then spoke up the leader: "Let's take a new departure! Let's make aprons. Aprons for all the woman and girl-kind, of every age and persuasion, from grandmamma to the baby, from esthetic Emily

to Bridget Flannigan: cook, chambermaid, nurse. They like something we have made with our own hands. Oh! I say, then, aprons let it be!"

Sometimes, often in the history of the world, a great genius makes a discovery so that everybody wonders the thing had not been found out before. So with our girls. There were congratulations, consultations, plannings and plottings, a ransacking of bureau drawers, closets and trunks; a sudden development of the economic spirit, the bringing to light of trimmings, bundles of pieces and treasures old and new; the making of small purchases in the shape of linen, percale, gingham, cheese-cloth, scrim, muslin, remnants of silk, embroidery silks and cottons, braids, edgings, ribbons; an examination of fashion plates, a cutting of patterns, and taking measures; all in a mysterious way, and then secret sessions of sewing at one another's houses.

If you have never given your mind to the subject, you would have been astonished at the variety talked about, at the pretty results, and what is important where money is not plentiful, at the small expense.

The cheapest apron was one for Bridget, the laundress; a clothespin apron, made of three quarters of a yard of bedticking, sewed into a belt at one end, the other hemmed, and turned up nine inches on the outside and stitched down on the outer edges, making a bag. This Bridget could tie around her waist, and then put her clothespins in — and there they were, ready! "Indade, a better way, Miss Grace," she said, "than havin' 'em in a basket on your ar-r-m, and havin' to hold one in your mouth. And how did I ever get along that way, anyway, before?" So that was a success; and to Bridget a joy and convenience forever — at the cost of twelve cents, including tape for strings.

The most luxurious one was of blue silk and lace, for the esthetic Emily — a tea apron, just the width of the silk and coming down to the knees; cut going, with a pinked ruching around it, and outside of the ruching a trimming of dainty white lace; puffed pockets trimmed with lace, and yards of blue ribbon to tie it with. It was distractingly pretty, and looked dressy and dainty enough for a princess.

This was exceptionally expensive, though the silk was only half a dollar a yard, and it only took a yard and a half. Another fine effect was produced by means of part of a breadth of a worn-out black satin gown of grandmother's and a few needlefuls of gold-colored embroidery silk which were used to decorate it here and there with a shining yellow daisy, wrought by long stitches thrown upon the outside.

Those who could get remnants of silk or satin made exquisite aprons, no two alike, one trimmed with a ruching of the same, one bordered with French lace at twenty-five cents a yard, one with jet beads and bugles set in a handsome pattern; and one of the girls took some odds and ends of trimmings which her mother had said she was tired

of seeing about the house, and did wish they could be put to some use, and with a remnant of black silk made an apron with "that fringe" across the bottom and "that velvet ribbon;" and "those rosettes" on the pockets; and "that cord and tassels" to tie it with, and surprised her mother with an apron she was so delighted with that she wore it every afternoon and showed it to everybody who came in as "the Christmas present my daughter made me."

You know that many nice, motherly old ladies, grandmothers and aunts, never think they are dressed ready to sit down to their sewing or knitting unless they have on some kind of an afternoon apron. If they do seem a little old-fashioned in this, let me tell you that old fashions have come around again, and any way, a pretty fashion this always is. Be sure any of them will be pleased with a neatly-made white one, or a black silk.

For "tea aprons" for young girls, what pretty things there are! You can make the "Roman scarf apron," by setting bright stripes of different colors on a white linen ground; and there is no limit to what can be done with linen, or mull, or Victoria lawn, with all your fancy can suggest in the way of frills and tucks, and cunning little pockets set off by bows of ribbon. Is not an apron — a little dress-up, or fancy, or work apron — just in keeping with dainty girl-ways and a girl's home life? The very look of it is home-ish. You think of pleasant interiors; of the winter fireside, of needlework and content; of the household, instead of society.

The most elegant sewing apron our girls made was of coarse white linen turned up across the bottom where sprays of barberries embroidered with silk made a vivid scarlet pattern and other sprays decorated the small triangular pockets. One cheaper, more useful and also very pretty was of brown linen and scarlet braid, so cheap that any one could afford it and easily made. The materials, three fourths of a yard of brown linen and four sticks of common dress braid, costing in all not more than thirty-five cents. The apron need not be cut more than twenty inches long, and about the same across the bottom, where it is rounded, gored away fifteen at the top, where it is hollowed out a little to fit, and is flat and plain without fullness. It is trimmed with loops of the braid, two inches after they are doubled, laid on after the edge has been turned over and basted down; a strip of braid is stitched flat over where the ends of the loops meet, so they turn each way and make a handsome border; braid is stitched flat across the top continuing on in long ends for strings to tie in front. A long pocket curving like the apron, and bound with braid, is stitched a few inches from the bottom; and two small half round ones likewise bound set near the top; these for thimble, thread and small articles, the large one to hold your work. It is a jaunty, bright, durable and dressy affair.

Then there are the delicate, lady-like cheese-cloth aprons, nice enough for anybody, though they need not cost over five cents without trimming. Three fourths of a yard will make one long enough and allow for a three-inch hem. It should be hemmed the same width up the sides; no goring, and gathered into a belt. Before making it up, draw the threads for three quarters of an inch; then leave that space, and draw as many more, and so on until you have four of the spaces; then through the middle of these run a needleful of embroidery silk, taking up several of the warp threads as you go and turn then the other way, making an openwork pattern, a sort of "fagoting;" or, run a narrow ribbon of some gay color through them. The bottom hem comes up to meet this work and helps complete a rich-looking border. If you wish to make a very elegant one, set all around it some cream-colored lace and put a ribbon for strings, but this kind of apron has no pockets.

For a simple and useful and always acceptable gift to your mother, or any housekeeping friend, or the one among your girl-mates who likes to cook, who delights to concoct nice dishes for the table, and stand at the rolling-board or kneading-bowl, buy two yards of thin, unbleached muslin and make a wide, long baking apron; or, for a better one, get what is called butcher's linen, coarse and strong and snowy-white; or a piece of soft, firm towelling, fringe it out, and make a towel apron, or, make a bib apron of some pretty wash goods, print or gingham; cut a wide, long, generous, serviceable one, and then the bib part to cover the whole front of the waist, of a piece six or seven inches deep and ten or twelve across, shir it at top and bottom and let the top edge stand up in a ruffle, then make a pair of sleeves of the same goods large enough to slip over the dress sleeves — and long enough to pin on at the shoulders when she is at her cooking, and so have the whole front of her dress protected. In this style some of the ladylike teachers of the cooking schools attire themselves for work.

Then the long, ample nurse aprons, tucked or plain — our girls made two of those; nor did they forget the child's apron, shaped like a sacque or princess frock so that it could be worn instead of a dress if need be, a trim little "slip" piped all around with cardinal cambric, curving in at the waist where long ends were put on to tie it; another of Mother Hubbard style, white lawn with a blue yoke and sleeves, pronounced "so cunning" by everybody who saw it; and a demure-looking, old-fashioned "tier," such as the wee schoolgirls of thirty years ago used to wear to keep their gowns tidy, and to this they gave the name of the "Red-Riding-Hood" apron — which reminds me that one of their substantial housework aprons of dark print they labeled "the Cinderella."

This fancy naming was the amusing part of the matter; for instance, the "Katrina," which was an odd little Dutch apron with one pocket and the least bit of bib; and an "Utterly Utter," of mull, so ruched and pinked and airy that it suggested to somebody this quotation: "a variety of excessive charge and little use!"

They borrowed patterns and they designed patterns; inventive genius was brought into action; and how many girls have it — the happy gift for devising graceful shapes and putting on tasteful trimmings!

It is legitimate girl-work too, to plan and cut and fit, which had its beginnings, I think, with making doll costumes that the little women, the little mothers, have found so fascinating ever since the advent of the first doll ever heard of. Needlework belongs with the fine arts, or ought to; at any rate with the arts as well as utilities of home. It is one of the commendable things in some of the modern schools that cutting, fitting and sewing are taught.

I need hardly say that all concerned lauded our company of girls who set this idea to work and made the making of aprons quite a "craze" for the Christmas of that year of our Lord eighteen hundred and eighty — something.

THE MAKING OF PICTURES.

BY SARAH W. WHITMAN.

III.

MODELS.

IN the last chapter, "How the Artist gets Material," I spoke of the general matters which have to do with study and equipment; and I dwelt

upon what the artist is to be, as well as what he is to do, because all this involved the broad principles on which his education must be built. But there are many points connected with practical training which are interesting of which I wish to tell you.

During the student's education he will have, for instance, much to do with *models* in many forms;

and after he leaves the school, and works alone in a studio of his own, models will still be of great consideration to him. By this word, models, is meant all objects which serve as facts or examples to look at and represent, in the picture which the artist is making. One selects his models with reference to the kind of picture he wishes to paint; that is, if he is a painter of portraits, or other works involving the representation of human beings, he must have some one to "pose" for him; if he paints marine views, the sea and ships will be his models; if he is a landscape painter, then he needs fields and trees and skies for the objects which he is to portray. There is still in existence an impression that artists make pictures "out of their imagination," as is commonly said; and vastly many pictures appear as if they were painted on this theory, where untrained and pretentious persons paint without reference to truth after the pattern set by their own ignorant fancy. It is so much easier, William Hunt used to say, to paint a palm-tree from imagination than an apple-tree from life! When a man can paint beautiful and true pictures without the use of models, it is because he has learned the secrets of Nature, and can use them at his will.

But almost always an artist depends greatly upon models, which he obtains in one way or another, going perhaps, if he live in one of the largest cities, to the "Italian quarter" where picturesque people abound, watching for the face or figure which seems to embody some artistic idea, and which comes to him by many a happy chance. In New York and Philadelphia, where drawing from the living model has been long practiced in schools and studios, it is comparatively easy to find good models; by which I mean those who possess good physical development, and are skilled in adapting themselves to the painter's requirements.

In Paris it is a well-recognized trade to "pose" in the studios; and one finds there, and in Continental cities generally, a number of men and women who have trained themselves to take any pose which an artist may require, and to hold it an incredibly long time. I remember an Italian model who prided himself upon this capacity, and I have often seen them stand in a difficult or painful position for nearly an hour without a perceptible motion. When Munkacsy, the famous Hungarian painter, was making his picture of the "Crucifixion," the model, who was suspended by cords in his studio, frequently fainted from fatigue; and the painting was achieved by pain and struggle on the part of model and artist alike.

Especially in portraiture one is obliged to work from the living object; for here it is essential to reproduce not only the likeness of a man's outer shape, but also of his inner self; not only his eyes, but that nature which looks out of his eyes, and which is a part of the appearance which he

presents to those who know him. The character is not indicated alone by the features or the contour of a face, but by most delicate and subtle lines also, which must be studied from the life with intensest devotion. Once, in finishing the portrait of a baby, I could not recall with certainty the movement or curve of its eyelid. The child lived a long way off, and I went to find it. It was asleep; but waking, for a moment looked at me, I saw the line I needed and returned — having travelled ninety miles to see the expression of a little eye, which was not exactly like any other eye, and which was essential to the truth of the portrait.

In the treatment of figures, whether it be in portraits, in historical pictures, or in other departments, the *accessories* are of great account. Costume, drapery, decoration, architectural detail — these and much more must be considered by the artist, and painted with fidelity. By this word fidelity, I mean the printing of each part with reference to its own qualities, and to its proper relation to all other parts of the work. It is extremely difficult to define in words this nice adjustment; for the success of perfect art can be better felt than described. I have seen two pictures each representing a man dressed in velvet; and one was a portrait of a man, and the other a portrait of a velvet coat. That is, in the second picture the velvet was painted in such a way that it appeared of the most importance; though really it was an accessory, not the subject or "motive" of the painting.

In studying accessories, the museums of fine arts are of great value to the student, for there he can find details of costume for different ages and nations, hints of architectural device, ornamental and decorative objects, from which he can select according to his needs. Here too will be found now, happily, collections of photographs, made from the most famous paintings and drawings in the world, which furnish the best lessons in the art of composition; are in fact models of great and splendid arrangement and style; examples where every line was drawn by a master's hand *for a purpose*.

Books also are necessary for the understanding of a thousand things which perhaps cannot be seen at all, or are too remote to be visited. Ferguson's *History of Architecture*, or that of Viollet-le-Duc; various works on the costumes of ancient and modern times — these and others will give much information to the careful student. This study from authorities is necessary when an artist wishes to represent historical or mythological scenes, where what he paints must be true in certain recognized ways to traditions, where, at all events, the larger accessories must be so truly related to the man in idea that they enhance its dignity and value.

Among recent instances of what may be called "artistic conscience," Holman Hunt, the English painter, when studying for a picture called the

"Shadow of the Cross," representing Christ as a youth working in a carpenter's shop, obtained shavings from Palestine so that he might have models identical with reality. It may be asked justly if this was not giving far too much importance to an extremely insignificant detail; but I leave you to think of this for yourselves.

The painting of groups of figures involves great study and labor, as may be seen; for this requires many models, and the skilful arrangement of form, color and light. Sometimes artists make little wax or plaster models, which they use for preliminary sketches; and this plan was practiced with great success by Tintoretto who painted the most daring compositions of the great Italian school to which he belonged. When he had conceived the idea of a picture in his mind, he would then make these little wax models, and arrange them, according to his idea, at the end of a long box; then he would cause a strong light to be thrown upon these figures first from one side and then from another, till he had decided which light would be the most impressive; and having done this would proceed to make his picture. This use of modelling by painters is most valuable; and every well-educated artist should be able to work somewhat in clay, as well as in etching or lithography, if only to enlarge the breadth and vigor of his own method.

So far, I have only spoken of studio work, and of painting from the figure; but, as we know, in this century landscape and marine painting have felt a new impulse, corresponding to the study and appreciation of natural scenery in poetry. It has been said that "Wordsworth discovered Nature," and though one does not admit that when one remembers some of the earlier glories of literature, it must be granted that Nature has come very much nearer to man than of old, and in it the artist finds a new and ever-varying mode of expression.

Now to paint the landscape one must go out of doors and study all that goes on there; making sketches, watching effects, and learning how to represent broadly and nobly the changing scenes. Most of the great landscape painters have not travelled much; but they have learned to know some special place *intimately*; have seen it early and late; at dawn and sunset, through rain and shine — and found enough variety for a lifetime, it may be, on the borders of one little river. The French Millet painted the scenery that he found within half a mile of his own farmhouse; his models were the unconscious peasants going about their tasks; hoeing and harvesting, washing and baking, planting seed and gathering in the grain. Daubigny sketched the same group of trees again and again — but no one complained of his monotony; the truth being the monotony must exist in the artist before it is visible in the pictures he paints.

Many ingenious devices are used to enable one to see the landscape at an advantage. Hamerton tells of a glass tent from which he could look forth on all sides and work within securely. William Hunt caused to be made for out-of-door work a painter's van, which consisted of a great wagon with provision for all the implements needed. There were drawers for paints and brushes; racks for wet sketches, and room to set up an easel, so that he could paint under cover. This was sketching made easy, so far as comfort was concerned, for nothing is more agitating than out-of-door work, where wind and sun unite to prevent peace and serenity. One's easel blows over; one's sketch is covered with dust; or the umbrella makes a glare instead of a shade; while, work as fast as you will, the clouds change every minute, the light comes and goes, and the colors fade or deepen — even the innocent grazing creatures take on new forms of activity; for as every one knows, though cows recline peacefully for hours in the shade, it is only necessary for an artist to begin to draw one of them for the slow animal to be smitten with a sudden fever for action, and gathering her stiff limbs together she will rise at once!

All this difficulty in getting substantial work done in the open air makes it necessary that one should accustom one's self to observe accurately to make quick studies, and to remember what one sees; for in this way the picture begun out of doors may be safely completed within walls; indeed it is seldom that the "last touches" can be given to landscape work except in the studio.

Within a few years there has been much interesting work done in this country by marine painters. The picturesque incidents which belong to seashore life have been closely studied, and note made of that singular charm which attaches itself to wharves and harbors, to the small and large craft on river or ocean; the fleets, the flying sails — all these marine models are constantly giving opportunity to the artist able to perceive their meaning.

I do not speak of models for pictures of still life, because they are far too numerous. Almost any object arranged with a picturesque light and background can be used with advantage; and the brush of genius can transform it into a work of art. Houses form another group of charming models, and are greatly used — mis-used — and abused. Flowers often serve to furnish designs for decorative work, and here, too often, the principles of their growth and structure are sadly set at naught. In so-called conventional work, I have seen sun-flowers made to grow on trailing vines, and lilies grafted upon bushes!

Now true art, be it remembered, takes no liberties with the *nature of things*; she joins hands not with the destroyer but with the Maker of laws.

SEARCH-QUESTIONS IN AMERICAN LITERATURE.

BY OSCAR FAY ADAMS.

III.

AUTHORS' ALLUSIONS TO AUTHORS.

41. Of what poet was this said, and by whom?

With loving breath of all the winds his name
Is blown about the world, but to his friends
A sweeter secret hides behind his fame,
And Love steals shyly through the loud acclaim
To murmur a *God bless you!*

42. To whom does Holmes allude here?

How the mountains talked together
Looking down upon the weather,
When they heard our friend had planned his
Little trip among the Andes!

43. In *The Tent on the Beach* what three authors are described in stanzas 5 - 16?

44. To what noted writer is allusion here made?

The wizard hand lies cold,
Which at its topmost speed let fall the pen,
And left the tale half told.

Ah! who shall lift that wand of magic power,
And the lost clue regain?
The unfinished window in Aladdin's tower
Unfinished must remain.

Name the author of the lines.

45. Supply the blank in the following:

Here comes — abstractedly lingering along,
Involved in a paulo-post future of song,
Who'll be going to write what'll never be written
Till the Muse, ere he thinks of it, gives him the mitten.

46. By whom was this said of Doctor Channing?

Thou livest in the life of all good things;
What words thou spak'st for Freedom shall not die;
Thou sleepest not, for now thy Love hath wings
To soar where hence thy Hope could hardly fly.

47. What poet is meant in these lines by Aldrich?

They never crowned him, never knew his worth,
But let him go, unlaurell'd to the grave.

48. What author is described thus by Lowell?

The face, half rustic, half divine,
Self-poised, sagacious, freaked with humor fine,
Of him who taught us not to mow and mope
About our fancied selves, but seek our scope
In Nature's world and Man's.

49. Of whom does Emerson thus write in *Wood-notes*?

Many haps fall in the field
Seldom seen by wishful eyes,
But all her shows did nature yield
To please and win this pilgrim wise.

50. Who wrote *The Herons of Elmwood*, and of what poet is mention there made?

51. What authors are sketched in *The Tales of a Wayside Inn*, as "The Sicilian," and "The Poet"?

52. Of what poet was this said:

His nature's a glass of champagne with the foam on't,
As tender as Fletcher, as witty as Beaumont.

53. Where can be found the following allusion to Charles Sumner?

Like Winkelreid, he took
Into his manly breast
The sheaf of hostile spears, and broke
A path for the oppressed.

54. Find the remainder of this tribute to Bryant?

We praise not now the poet's art,
The rounded beauty of his song;
Who weighs him from his life apart
Must do his nobler nature wrong.

55. To whom is the allusion in these lines?

When Truth herself was slavery's slave,
Thy hand the prisoned suppliant gave
The rainbow wings of fiction.

56. What writer is styled by Lowell:

Our hearty Grecian of Homeric ways?

57. To what two authors does Whittier here allude?

When last I saw her full of peace,
She waited for her great release;
And that old friend so sage and bland,
Our later Franklin, held her hand.

58. What writer does he here call Philothea?

There comes Philothea, her face all aglow,
She's just been divining some poor creature's woe.

59. Of whom does Longfellow thus write?

How sweet a life was his, how sweet a death!
 Living, to wing with mirth the weary hours,
 Or with romantic tales the heart to cheer;
 Dying, to leave a memory like the breath
 Of summers full of sunshine and of showers.

60. What writer is thus sharply characterized
 and by whom?

Three-fifths of him genius and two-fifths sheer fudge.

ANSWERS TO SEARCH-QUESTIONS IN OCTOBER READINGS.

1. Washington Irving, 1783-1859.
2. Elihu Burditt, 1810-1879.
3. John Eliot, 1604-1690.
4. William Henry Seward, 1801-1872. So called from the fact of his long residence at Auburn, N. Y.; Thomas Jefferson, 1743-1826, whose Virginia home was named Monticello; Ralph Waldo Emerson, 1803-1872, the greater part of whose life was passed at Concord, Mass.
5. John Greenleaf Whittier, 1807, whose residence for many years was at Amesbury, Mass.

6. Mrs. Maria [Gowen] Brooks, 1795-1845.
7. Oliver Wendell Holmes, 1809.
8. Henry David Thoreau, 1817-1862, who lived for some time on the shores of Walden Pond in Concord, Mass. See *Walden*, by Thoreau.
9. Cincinnatus Hiner Miller, "Joaquin Miller," 1841.
10. Joel Barlow, 1755-1812. See Barlow's poem, "Hasty Pudding."
11. Charles Sprague, 1791-1875.
12. Thomas Buchanan Read, 1822-1872.
13. John Dickinson, 1732-1808. Author of *Letters from a Pennsylvania Farmer to the Inhabitants of the British Colonies*.
14. George William Curtis, 1824.
15. Mrs. Anne [Dudley] Bradstreet, 1612-1672.
16. John James Piatt, 1835.
17. James Kent, 1763-1847.
18. B. P. Shillaber, James Russell Lowell, and Samuel Clemens.
19. Abraham Lincoln, 1809-1865. Known to literature by his orations.
20. William L. Alden, 1837.

ALL THE WORLD ROUND.

[Questions concerning China and the less-known countries will be answered in this department by Mr. Yan Phou Lee and his assistants. Address all inquiries to Mr. Yan Phou Lee, Yale College, New Haven, Conn.]

"What are some of the marriage customs in Norway?"

Among the people who dwell in the large cities where foreigners resort, the marriage customs have become similar to those in England or America. There are some slight differences. The ceremony always takes place in church. A minister officiates in every case. But people in the interior and in country towns and villages retain the primitive customs. The parents very often arrange the engagement while the couple are yet children, so that courtship may be said to often last from fifteen to twenty years as the chosen children are brought up to expect each other. At the ceremony the bride wears a heavy silver crown about eighteen inches in height and built up in stories. It is wrought in filigree, and has pendants hanging

around it. These bridal crowns are heirlooms, and are brought forth for use at every fresh wedding in the family. The bride wears the crown during the whole time of the festivities which continue for about a week. She is decked out in a short skirt with stripes of red and blue across the bottom. A tight bodice is worn over the skirt and this has white flowing sleeves. She wears all the jewelry that can possibly be put upon her, and glitters with rings, bracelets, chains and brooches.

The service is that of the Lutheran Church which differs little from that of the Episcopal Church. The country couple, with their friends, often have to go a long distance to church, sometimes in boats over the great bays called *fjords*. They never go on a wedding tour, but settle down to housekeeping at once.—R. A. JERNBERG.

C. Y. F. R. U.

REV. J. H. VINCENT, D. D., AND REV. J. L. HURLBUT, D. D., SUPERINTENDENTS.
MISS K. F. KIMBALL, PLAINFIELD, N. J., SECRETARY.

[This department, while not less interesting to the general reader, is especially set apart for the CHAUTAUQUA YOUNG FOLKS' READING UNION, the young people's branch of the Chautauqua movement for popular home education. It supplies a course of reading for young people which is intended to give them the most valuable knowledge in the most interesting manner. The Required Readings are issued simultaneously in WIDE AWAKE and the CHAUTAUQUA YOUNG FOLKS' JOURNAL; a few added books form the Supplementary Readings. The Union is under the direction of REV. J. H. VINCENT, D. D., and REV. J. L. HURLBUT, D. D., as Superintendents, in connection with the Editors of the magazines mentioned above. Any person, young or old, may become a member of the Union by sending his name and *ten cents* in postage stamps to the Secretary, MISS KATE F. KIMBALL, Plainfield, N. J., to whom inquiries for further information may be addressed.]

ONE great advantage of the C. Y. F. R. U. is that it presents a course of reading at once varied and systematic. People who desire to read intelligently do not wish a course in history only, nor in science, nor in biography, nor in English Literature as a subject. They wish all these departments to enter into their plans, and the best system is that which makes the most careful selection among a variety of studies. They need, too, a course that shall be easy and interesting, not too technical nor yet too simple, but precisely at the golden mean between the professional and the popular. Mr. Boffin, you remember, in Dickens' "Our Mutual Friend," wishing to begin with history, was induced to buy Gibbon's "Decline and Fall of the Rooshan Empire," as he stated the title, and he found it "a staggerer." We know a young man (though he is scarcely a young man now) who inquiring of the Greek Professor in his college for a good History of Greece, with which to acquaint himself with the general subject, was recommended to read Grote, and found to his amazement that it was contained in twelve octavo volumes. We read some time ago, a list of the books which a young minister was informed he ought to read in the single department of history, and without which he could not be considered well informed upon the subject, and it embraced eighty huge volumes. The C. Y. F. R. U. proposes no such Herculean task to its readers. It names three fascinating books each giving a general view of the subject, and a series of short, spicy articles in a monthly magazine. But the boy or girl who takes the course will be surprised to look back over the subjects included in three or four years' reading, and to notice how varied they have been, and how extensive has been the knowledge gained.

A FARMER who secured much larger crops than his neighbors was once asked what manure he used to produce such results. He answered, "I manure my farm with brains." "With brains!" exclaimed his visitor, "why, that must be very expensive!" The successful farmer was under the necessity of explaining that he did not buy his brains, but used only those which were given him. Well, the farmer was right. The difference between success and failure, between the upper and lower crusts of the social scale, between the employer and the employee, between the master and the servant, is generally found in the use which each man makes of his own original endowment of brains. Of course there are opportunities of birth which may give to some a start in the race far ahead of their competitors.

Yet, taking man in the mass, brains constitute the most important element of success. The boy who develops his brains by reading, thinking, and talking, is far more likely to make a first-class man than the boy who idles away his time. The young girl who spends her spare hours in reading the Course of the C. Y. F. R. U., or some other line of study which will build up thought and character, will be of more use in the world than the girl who reads love-stories and stands waiting for her first flirtation. I once happened to visit a journeyman carpenter in the evening, and found him studying mathematics as it applied to carpentry—hard work for the mind after a day spent in planing and sawing. But it was no surprise to hear six months afterward that he had been made a foreman, and in a year later was partner in a large building establishment. If Henry Wilson had been content to make shoes, he might have lived and died a shoemaker; but he used his brains at night after pounding his lapstone all day, and fitted himself to be Vice-President. There are two boys who are thinking about a course of reading just now. One of them will undertake it, and be led by it to thoughtfulness, intelligence, leadership. The other will give it up, and will probably be an underling all his days. Young farmers, manure your mental plantations with brains!

THE Associate Superintendent, Rev. J. L. Hurlbut, whose address is Plainfield, N. J., would be glad to hear from Local Reading Unions, to receive programmes of their meetings, and to know how they are conducted. He will answer the letter of every circle of the C. Y. F. R. U. that writes to him, and would like to come into personal relations with the different organizations of the Union. We can help each other by a little sociability, let us get better acquainted. There are many readers of the Union, and their experience ought to be of some aid to one another.

THE members of the C. Y. F. R. U. should not only strive for the Four Series of Prizes offered them (look for the Prize Page after the Post-Office Department, in this number), but they should keep in mind the Prizes offered in connection with Mr. Adams' "Search-Questions In American Literature." (See October number for particulars.) Nothing has yet been planned for the members of the Union which will secure to them so much general information, as these Search-Questions.

Answers to Search-Questions should be addressed to Editors of WIDE AWAKE, 32 Franklin Street, Boston, Mass., with the words "Search-Questions" in corner of envelope.

The titles of books to be given as prizes will be announced in the January WIDE AWAKE.

Complete lists of correct answers to the October Search-Questions have been received from members of the Union as follows:

Winifred T. Denison, Hurlbut C. Y. F. R. U. Circle, Framingham, Mass. (F. B. Daniels Sec.) Frank Field, Ella M. Booth, M. L. Schoolfield, Edith L. Johnson, C. Y. F. R. U. Circle of Nora, Ill. (J. S. Hubbard Sec.), C. Y. F. R. U. Circle of Albion, Mich., C. Y. F. R. U. "Star" Circle of Providence, R. I. (Nellie F. Alexander, Sec.), Sarah L. Galloupe, Danvers, Mass., C. Y. F. R. U. Circle of Berlin, Mass. (Clara S. Shattuck, Sec.)

Partial lists, and lists not wholly correct, have been received from the following:

William Boyd, Bertha E. Pierce and Emma Ramsey of the Baptist C. Y. F. R. U. Circle of Olean, N. Y., The Pioneer Club of C. Y. F. R. U. of Waterbury, Conn., John Taylor, Gertie M. Carnahan, Jerome W. Howard, A. Pearl McVay, Renah E. Mosher, Mabel G. Crouch, Burnie Olds, Hattie Stockham, Harry M. Childs, Effie M. Thorndike, Harriet W. Bray, Emily E. Tupper, S. E. Whitaker, Sarah Henderliter, Alice Underwood, Carrie E. Ross, Frank K. Grant, Frank B. Frye, "You and I Club" of C. Y. F. R. U., Providence, R. I. (Bessie W. Olney, Sec.), Charles B. Norton, Ethel Sanders, Harvey E. Bruce, Jennie Edwards, Nellie Ward, Lula M. Davidson, Carrie M. Dunn, Adra F. Eaton, Susie W. Turnely, C. Y. F. R. U. of Quincy School, Sixth Grade, Lawrence, Kansas (Katie L. Riggs, Sec.), Lawrence M. Cody, "Sunshine" Circle C. Y. F. R. U. of Dorchester, Mass. (Anna W. Smith, Sec.), W. L. Laurence, New Leeds C. Y. F. R. U. Circle of Elkton, Md. (Mary H. Little, Sec.), Susie D. Tew, Rocket Circle of C. Y. F. R. U. Lebanon, O. (Viola Mull, Sec.), Laura Puffer, Class "88" C. Y. F. R. U., Daniel Sumner Farrington, Charlotte D. Isles, Nellie Colfax Smith, Nellie Tunncliffe, Miss E. B. Hayes, Francis Sterrett, M. A. Lanman, C. Y. F. R. U. Circle of Lawrence, Kan. (Whitmore Churchill, Sec.), Bessie Montgomery, Lena Pratt, Chautauqua Gleaners of Lynn, Mass. (Dana A. Sanborn, Sec.), Bella M. Whelpley, C. Y. F. R. U. Circle of Norwich, Conn. (L. C. Mershon, Sec.), Harlan C. Pierson, Gertrude H. Hendry, Harry A. T. Dow, C. Y. F. R. U. Circle of Westfield, N. Y. (Alice Holt, Sec.)

The letters which accompanied many of these partial lists, witnessed to much investigation and that much independent discrimination had been exercised. Nearly all were correct save in two or three questions; and it is noteworthy that the answers which differed from Mr. Adams' answers agreed in giving Edmund C. Stedman as the Banker Poet instead of Charles Sprague, Washington Allston as the Poet Painter instead of T. Buchanan Read, and William D. Howells as the Poetic Voice of Ohio, instead of John James Piatt.

Many of the letters resemble the following in showing that our young folks are capable of taking thorough measures in scholarly matters.

BLANDINSVILLE, Ill.

SUPERINTENDENTS C. Y. F. R. U.:

We hereby send the answers to all the questions in first set, except No. 16: "What living writer has been called The Poetic Voice of Ohio"?

We have looked over all the biographies in "Hart's Manual of Literature," the three thousand names in Webster's Unabridged; asked every one in town likely to know; a lady teacher in Bushnell has tried to help us by examining two libraries in that place and brought it before their literary meeting; but we can not find it yet, but mean to keep on trying.

ALICE UNDERWOOD.

FREDERICTON, Canada.

SUPERINTENDENTS C. Y. F. R. U.:

I have formed a branch of the C. Y. F. R. U. among my school friends and held our first meeting on Saturday, November 1. We answered what we could of the Search-Questions. I enclose the answers and beg you to accept them even at this late day. We will be prompt about the next set. Our club thinks that it is not fair for us Canadians for you to make all the questions on American Literature. Why not give some from English Literature so that we might have as good a chance as the sons and daughters of "Uncle Sam"?

Yours,

MAMIE K. TIBBITS.

Sec. C. Y. F. R. U.

We take pleasure in promising our Canadian young folks that they shall have Search-Questions in English Literature next year. The twelve sets are already in active preparation.

It may interest our young lovers of natural history to know what Miss Kingsley says of Dean Buckland, to whom she refers in her Westminster paper in this month's C. Y. F. R. U. Readings. She writes:

"He was the father of Mr. Frank Buckland, the well-known naturalist, and shared his son's tastes for all kinds of strange beasts alive and dead, and the Deanery was crowded with eagles, serpents, and monkeys — a veritable menagerie. One of my earliest recollections of Westminster is connected with a story my grandfather used to delight in telling us as small children. He went to dine at the Deanery with Dean Buckland, and in the course of dinner a dish of some quite unknown meat was set before him. There was evidently a mystery or joke about this dish; but my grandfather and the other guests ate it bravely, though feeling all the while certain that an experiment was being tried on them. When dinner was over the Dean confessed He had for a long time wished to know how "fox" tasted, and a friend having sent him a nice young fox the Dean thought it a fine opportunity to share the dainty with his guests — a privilege they did not at all enjoy."

THE WIDE AWAKE POST-OFFICE.

All who enjoy the beautiful poem "Little Maid Bertha's Stork" in this number, will be further pleased to know that Mrs. Whitney says the little narrative is based on a real incident told her by a lady long resident in Syria.

A MORNING DREAM.

[Dedicated to the Candy Cooks of WIDE AWAKE, by M. E. B.]

I dreamed a dream in the morning,
When the grass was spangled with dew,
And people who know about dreaming
Say morning dreams come true:
Up from the southern palm-trees,
Down from the northern pines,
Over the western prairies,
And across the border lines,
Came an army of graceful maidens
With faces like roses in June,
Marching in martial order
And singing a martial tune:
"O the cooking! the cooking!
With sugar and butter and spice,
With everything luscious and toothsome,
With everything dainty and nice!"

I knew by the shining banners,
Of barley spun so fine,
By the sweet and delicate odors
That floated along the line,
By the helmets of taffy and almonds,
And armor of frosted cake,
That these were the conquering forces
Of the Cooks of WIDE AWAKE;
Each with a smoking saucepan,
Each with a silver spoon,
And all, as they marched together,
Singing like birds in June:
"O the cooking!" etc.

Jackets of caramel satin,
And skirts of chocolate creams,
You know one is never astonished
With things they see in dreams —
Buttons of rose-red crystals,
Flinty and hard as rocks,
Stocking of white marshmallows
And boots of horehound drops,
Pelting each other with bonbons,
They marched by valley and lake,
Singing the martial chorus
Of the Cooks of WIDE AWAKE:
"O the cooking," etc.

There wasn't a kind of sweetmeat
That ever had tickled the l.s.
From goodies of Cochin China
To piles of Boston chips,
Paste of figs from Turkey,
Guava jelly, and jam,
Marmalades Scotch and English,
Pies of Amsterdam,
Ginger preserve from Siam,
And cakes of Babelmandee,
That they couldn't make as quickly
As you'd make fun, or tea —
These cooks who know about cooking
With sugar and butter and spice,
With everything luscious and toothsome,
With everything dainty and nice!

So in my dream that morning,
I thought they came marching down
From river and vale and mountain,
From country and shore and town,
With O! such vollies of candy,
And O! such broadsides of cake,
That we yielded without a condition
To the army of WIDE AWAKE;
And from every hearth in the nation
Went up the conquering tunes,
While they boiled and skimmed and flavored,
And flourished with silver spoon:
"O the cooking!" etc.

EAST ORANGE, N. J.

DEAR WIDE AWAKE:

Will some of your readers give me directions how to preserve milk-weed pods after they open, so as to keep them together that they will not fly apart?

ANNIE L. HALL.

1015 SPRUCE STREET, Phila.

DEAR WIDE AWAKE:

I thought I would tell you something which occurred to me while studying the geography of our country. The Alleghany and the Rocky Mountains are on the outside edges of the country, and inside of them are the great fields, plains, and prairies of the country. In the Alleghany Mountains which reach from New Hampshire to Alabama we find these ores, stones and minerals: in New Hampshire and Massachusetts, granite; in Vermont, marble; in Pennsylvania, iron and coal; in West Virginia, coal; in Tennessee, variegated marbles; in North Carolina and Georgia, gold. In the Rocky Mountains you find these: in California, Idaho, Arizona, Utah and Colorado, gold and silver; in Missouri, iron; in Michigan, copper. These mountains make a rim around each side of the country; inside of this rim

are the great green prairies, fields and plains, in Illinois, Indiana, Ohio, Iowa, Nebraska, Dakota, Kentucky, Texas and the rest. Now this arrangement seems to me like a great bowl; and this is the way I would make such a geographical bowl in miniature—I would inlay in squares, granite, marble, iron, gold, iron, silver and gold, variegated marbles, iron and copper; the whole inside I would make in green enamel to represent the green fields of the interior States. Now at the foot of these mountains and around them, and in the valleys below, there are growing wheat, corn, tobacco, rice, sugar-cane and cotton; so I would put in relief over the inlaid work on the outside, wheat stalks, corn tassels, tobacco flowers, rice stalks, and cotton pods, with orange blossoms to represent Florida, and wheat stalks and pine cones to represent Maine and Washington Territory. Now, dear WIDE AWAKE, don't you think that would make a pretty bowl?

SUSAN KEYSER.

P. S. I will be eleven years old the first of October.

Yes, dear, it would be a beautiful bowl, and the little designer has arranged a very artistic bit of ware.

DENVER, Col.

DEAR WIDE AWAKE:

I have taken you for five years and like you very much. My dearest friends make fun of me because I am so fleshy; I weigh seventy pounds and am ten years old. I was out to the Colorado Exposition. It has a very fine display of agricultural products from Colorado. I went out camping not long ago, and had a very nice time. I was wicked enough to take off my shoes and stockings and wade in the Platte River.

SIPPIE.

EAST GLOUCESTER, Mass.

DEAR WIDE AWAKE:

I wish I could express even a part of the love and admiration I have for you, you dainty little magazine. All summer I have been trying to write a long letter to you. Why don't the WIDE AWAKE girls and boys write more about their pleasures, and what they read and tell what authors they like best, and about visits to fine picture galleries, and what pictures they like best. Oh! how I wish they would. DEAR WIDE AWAKE, I have so much to say I hardly know where to begin, but if I make my letter too long, do not put the whole in the waste basket, but clip out what you think most interesting to publish, won't you? I am the Miss Hodsdon who offered to exchange homes with some one for the summer. I thank you for publishing my letter so promptly. I received a large number of replies. I much regret that my health would not allow me to accept any of the kind offers. I wish through this medium to extend my thanks to Miss Woodbury (whose address I unfortunately lost), Elizabeth Cummings, Mrs. Powers and especially to Miss Johnson for their sympathy.

I think I have never seen any reference to art in this department, and I am sure that it is not because the WIDE

AWAKE readers are not interested in it. I do not think that any of them who have been to East Gloucester will disagree with me when I say that it is a beautiful place. I wonder if any of them noticed in the "Boston Art Club" last March, a charming little picture by Miss Trotter, of a group of lovely children bathing in a pool, hedged in by huge, shadowy ledges, and recognized one of the romantic spots at Grape Vine Cove? Or at the same time saw George Harvey's water colors of East Gloucester? Or at Noyes and Blakeslee's saw Stephen Parrish's lovely picture of Rocky Neck? I wish some of the Boston readers would mention if they have seen the grand picture of "Joan of Arc," and their impressions in regard to it, also mention the place where it can be seen, this season. I would deem a visit to the city incomplete if I could not see it.

I wish I could write more about the beauties of Gloucester, for writers seem to neglect it although artists do not; the Boston artist, Ross Turner, and several brother artists have a house this season a few minutes' walk from my home. I have seen a few of their pictures, which are beautiful almost beyond compare. I hope you will see them all in B— this winter. With the rest of its natural beauties "Cape Ann" is remarkably rich in its flora, although but few botanists have as yet discovered it. The orchids are especially numerous in variety and quantity, and very beautiful. Also a large variety of sedges and grasses. I fear this letter is altogether too long and after asking one question will close. For six years Miss Phelps has sent me the WIDE AWAKE every month, do you consider me a subscriber? With love to all "Wide Awakes."

VILLA HODSDON.

The Postmistress thinks Villa is a very wide awake subscriber indeed, and trusts she will wake up the other art-lovers among the letter-writers.

DOVESVILLE, S. C.

DEAR WIDE AWAKE:

My sister and I have been taking you nearly five years and I have never written to you before. I like the stories, "A Double Masquerade," "Their Club and Ours," very much. I tried your directions for binding magazines, and I bound four years' numbers of WIDE AWAKE and I succeeded very well. I would like to correspond with any boys who would like to get a collection.

EDWARDS F. WILSON.

PALESTINE, Tex.

DEAR WIDE AWAKE:

I went to a barbecue Thursday, and I was introduced to Hon. John H. Reagan, and he invited us to come out to his house, and spend the day. The meats were cooked very nice, and the bread was nice. It was laid out on a very, very large table. There was dancing and speaking out there. It was too ridiculous to look at some of the dancers, for there were only a few who knew how to dance well. The speakers were Senator Maxey, and Senator Reagan.

GRACE ELIZABETH BLANCHE TAYLOR.

To members of the Chautauqua Young Folks' Reading Union:

The Publishers of the C. Y. F. R. U. READING COURSE desire to show their pleasure in the high aims and praiseworthy perseverance of the members of the Union, most of whom have taken the three annual courses of Readings already published. Therefore they have decided to offer in connection with the next course,

Four Series of Prizes to the C. Y. F. R. U.

Each of the four series will consist of four money awards. (*sixteen prizes in all*):

\$10.00, \$5.00, \$3.00, \$2.00.

FIRST SERIES. In *Ways to Do Things*, in the Oct. '84 numbers of *WIDE AWAKE* and the *CHAUTAUQUA YOUNG FOLKS' JOURNAL*, Sarah Orne Jewett writes concerning "Town Clerks," proposing that every young person become a Town Clerk by making and preserving a record of all important and interesting events which take place in the town. The Publishers believe her suggestions will produce good habits of written expression, of observation also, and induce young people to take an intelligent and thoughtful interest in social and public affairs; and accordingly they offer Four Prizes of \$10.00, \$5.00, \$3.00, and \$2.00, respectively, to the writers of the four best Records or Neighborhood Diaries which shall be sent them by January 1, 1885. These records may be more or less historical or of current events only. The competitors must be Members of the C. Y. F. R. U., and not over eighteen years of age. Clearness, vivacity and conciseness of narrative, and good penmanship, will be taken into consideration. The prizes will be awarded and sent February 1, 1885. The names of the Winners will be announced in the March numbers of *WIDE AWAKE* and the *JOURNAL*.

SECOND SERIES. In the Nov. '84 numbers of *WIDE AWAKE* and the *CHAUTAUQUA YOUNG FOLKS' JOURNAL* there will be published, in *Ways to Do Things*, an article entitled "A Boy's Menagerie," which gives full directions for the manufacture of tent, cages and animals. To the four Members of the C. Y. F. R. U. who send the four best Collections of Animals which they themselves have drawn, colored and mounted, together with a set of Showman's Speeches concerning these animals, the Publishers will award Four Prizes, of \$10.00, \$5.00, \$3.00, and \$2.00, respectively. They will take into consideration good drawing, truth of coloring to nature, and the knowledge of natural history shown in the "speeches," also the wit and humor, also correct composition and good penmanship. Both boys and girls may compete, and competitors shall not be over fifteen years of age. This competition will remain open until February 1, 1885, and prizes will be awarded and sent March 1, 1885. The names of the Winners will appear in the April numbers of *WIDE AWAKE* and the *JOURNAL*.

THIRD SERIES. In the October 1884 numbers of *WIDE AWAKE* and the *CHAUTAUQUA YOUNG FOLKS' JOURNAL*, Rev. Dr. Edward Everett Hale begins a series of articles, *Boys' Heroes*. All boys, all girls, have their heroes, beings whom

they delight to dream about, beings who have achieved resplendent greatness or goodness, whose names they thrill with generous pride and admiration to hear. Dr. Hale, in making his list of twelve heroes, consulted with several boys and girls; but he could not hear, one by one, from the multitude. The Publishers here offer to the writers of the four best Essays, entitled "My Favorite Hero," Four Prizes, \$10.00, \$5.00, \$3.00, and \$2.00, respectively. The writers must be Members of the C. Y. F. R. U., and under eighteen years of age. Excellence of style and soundness of thought will be considered, also penmanship. This Competition will close March 1, and awards will be made and sent April 1, 1885. The names of Winners will be published in the May numbers of *WIDE AWAKE* and the *JOURNAL*.

FOURTH SERIES. There is a growing interest felt in handiwork,* by both boys and girls. The use of tools, in the construction of articles decorative and useful, is becoming a valued accomplishment. To encourage this taste, the Publishers offer Four Prizes of \$10.00, \$5.00, \$3.00, and \$2.00, respectively, for the four best Original Designs for any useful or decorative articles which can be made, presumably, by persons under sixteen years of age. These designs shall consist of the needful diagrams, accurate in shape and size reductions, definite descriptions of materials, and plain working directions. Housekeeping and furnishing conveniences, whether manufactured with "tools" or with needle, and appliances for out-of-door life and sports, will be considered in preference to articles purely decorative. Should any of the essays in this series be esteemed desirable for use in *WIDE AWAKE* or the *JOURNAL* they are to be the property of the Publishers for that purpose. This competition is open to all members of the C. Y. F. R. U. under twenty-one years of age, and to them only. It closes April 1, and prizes will be awarded and sent May 1. The names of the Winners will be given in the June numbers of *WIDE AWAKE* and the *JOURNAL*.

Offer Extraordinary!

A special Book Prize possible to ALL COMPETITORS!

In addition to the announcements of Prize Winners in the March, April, May and June numbers of *WIDE AWAKE* and the *JOURNAL*, there will be published in these numbers the names of all competitors whose efforts deserve *Honorable Mention*, and to all who win this distinction will be mailed, at the times of sending the money awards, a volume of the popular Young Folks' Library: to the boys, *Tip Lewis*, by Pansy; to the girls, *Margie's Mission*, by Marie Oliver.

Competitors must be subscribers to *WIDE AWAKE* or the *JOURNAL*.

All letters and packages must be fully prepaid, and addressed to D. Lothrop & Co., 32 Franklin St., Boston, Mass., U. S. A., and must be accompanied by the address of sender *within the parcels*. All matter accompanied by stamps and request for return will be returned to the authors at the proper time.

* See "A Boy's Workshop," C. Y. F. R. U. Course for 1883.

DEAN STANLEY WITH THE CHILDREN. By Mrs. Frances A. Humphrey. Boston: D. Lothrop & Co. Price \$1.00. In this tastefully printed volume are brought together five sermons to children, preached by Dean Stanley, prefaced with a biographical sketch by Mrs. Humphrey and with an introduction by Canon Farrar. Every reader knows what a charming man Dean Stanley was, and how ardently he loved children, and devoted himself to pleasing them. The sermons here given are full of exquisite tenderness, and form admirable models for discourses of like character. Canon Farrar says that there was not one sermon ever preached by Dean Stanley which did not contain at least some one bright, and fresh, and rememberable thing. His metaphors, his anecdotes, the invariable felicity of his diction, his historical, literary and biographical illustrations, his invincible habit of taking men at their best and looking out for the good in everything, the large catholicity which rose above the mean squabbling of religious parties, the calm of spirit which seemed habitually to breathe in the atmosphere of whatsoever things are true, and pure, and lovely, and of good report, made him a preacher to whom one would rather listen than to any other living man. Mrs. Humphrey's sketch not only gives us an excellent idea of the man himself, but also tells us many interesting things about the great English public schools. The volume is well illustrated.

IT IS THE CHRISTMAS TIME. By Miss Mulock, with Twelve Ideal Christmas Hymns and Poems. Illustrated. Boston: D. Lothrop & Co. Price, \$2.50. Nothing more exquisite in the way of a Christmas presentation book, or one better adapted to the spirit of the holiday season has yet been presented to the public than the volume before us. Printed in large, clear type, on the heaviest of paper, with broad white margins, and a series of twenty illustrations by famous American and foreign artists, engraved in the highest style of art, it forms a book of exceptional beauty, and one of which the publishers may well be proud. The opening poem, Miss Mulock's "Hymn for Christmas Morning," is followed by Naham Tate's "While Shepherds watched their Flocks by Night," a hymn which has held place in the hearts of the people for nearly two hundred years; Wesley's stirring hymn, "Hark, the Herald Angels Sing;" Herrick's "Star Song;" Bishop Heber's "Epiphany" —

Brightest and Best of the Sons of the Morning;

Keble's "Christmas Hymn;" The Rev. E. H. Sears's "Angel's Song;" William Drummond's "The Angels;" George MacDonald's "Babe Jesus;" James Montgomery's "Christmas Vision;" Wordsworth's "Christmas Carol," and Whittier's "Christmas Carmen." All those diverse in form and expression, breathe the one pure spirit of Christmas tide.

AMERICA. Our National Hymn. With Twelve other Patriotic Poems. Illustrated. By Rev. S. F. Smith, D. D. Boston: D. Lothrop & Co. Price, \$3.00. For the past two or three years there has been a strong demand for a new edition of this unique and elegant volume, which was originally published in 1879. The publishers have responded to the call by its reissue the present season, the work being extended by the addition of twelve new poems, all upon patriotic themes. The words of *America* were written fifty-two years ago, while the author was a theological student at Andover. An American gentleman, who had spent some time in Germany, on returning home brought with him a number of books used in the German schools, containing both words and music. These were presented to Lowell Mason, who placed them in the hands of the young student, asking him to translate anything he might find worthy, or to furnish original words to such music as might suit him. In the collection was the air — unknown at that time to Americans — to which Dr. Smith set the words now so widely known and sung. There was not the slightest idea on his part that he was producing a national lyric, but it caught the popular taste at once, and every year has fixed it more firmly in the hearts of the people as an expression of patriotic feeling. It was first sung at a children's festival at Park Street Church, July 4, 1832, and very soon found its way into district schools, Sabbath-schools, concerts and patriotic gatherings throughout the country. Some years ago a delegation from the Boston Board of Trade sung it together at the summit of the Rocky Mountains. It has been used at the celebration by Americans of the national holiday in nearly every country on the globe, and served during the war to brace the hearts and stimulate the courage of our soldiers in camp and hospital and in prison. The author's college friends for more than fifty years made it the first song sung at their annual class dinner.

The poems which are added in the present edition include among others, "The Pilgrims," written some years ago for Forefathers' Day; "The Flag;" "Washington;" "The Student Soldiers;" "The Sleep of the Brave;" "Decoration Day;" "Abraham Lincoln," and "My Native Land." They are all imbued with the fervent spirit of patriotism and represent a high poetic standard. The volume is splendidly illustrated by Harry Fenn, Robert Lewis, and other artists of reputation.

MY CURIOSITY SHOP. Illustrated. Boston: D. Lothrop & Co. Price, \$1.25. The little boy or girl who finds this book by the bedside Christmas morning, ought to be supremely happy. From cover to cover it is filled with the most delightful stories and rhymes and pictures, all written and drawn expressly for little readers, and by those who love them, and understand their likes and dislikes.

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BOOKS FOR YOUNG PEOPLE.

The following list of books has been specially approved for reading courses by the committees of the Chautauqua Young Folks' Reading Union, and other kindred societies.

A BOY'S WORKSHOP. By a Boy and his friends. Introduction by Henry Randall Waite. Illustrated. Cloth,	\$1.00
OLD OCEAN. By Ernest Ingersoll. Very finely illustrated. Cloth,	1.00
DOOR-YARD FOLKS. By Amanda B. Harris. Illustrated. Cloth,	1.00
MAGNA CHARTA STORIES. Edited by Arthur Gilman, M. A. Illustrated. Cloth,	1.00
GREAT COMPOSERS. By Hezekiah Butterworth. Illustrated. Cloth,	1.00
THE TRAVELLING LAW SCHOOL. By Benjamin Vaughan Abbott. Cloth,	1.00
PLEASANT AUTHORS. By Amanda B. Harris. Illustrated. Cloth,	1.00
CHILDREN'S ETIQUETTE. By Sidney Dare. Paper, 50c. Cloth,	1.00
THE STORY OF ENGLISH LITERATURE. By Lucy Cecil White. Paper. Illustrated. 75c. Cloth,	1.25
EYES RIGHT. By Adam Stwin. Paper. 75c. Illustrated. Boards,	1.25
A BOOK OF GOLDEN DEEDS. By Charlotte M. Yonge. Paper 50 c. Illustrated. Cloth,	1.25
HISTORY OF ROME. By Charlotte M. Yonge. Paper. 75c. Illustrated. Cloth,	1.50
OVERHEAD. By Mrs. Moore and Miss Nichols. Paper 60c. Boards,	1.00
GREECE. By Charlotte M. Yonge. Paper 75c. Illustrated. Cloth,	1.50
FIELD, WOOD AND MEADOW RAMBLES. By Amanda B. Harris. Paper 75c. Illustrated. Cloth,	2.00
WILD ANIMALS. With illustrations. By Harrison, Weir and Wolf. Paper 50c. Cloth,	1.00

While the many readers of Margaret Sidney's books will regret to learn that the publication of *The Golden West* is delayed until next season, by the time required for the artists' work, and the delays in the engraving necessary to bring the book to perfection, they will be glad to know that new and beautiful editions of the popular quartos *What The Seven Did*, *Who Told It To Me*, *Ballad of The Lost Hare*, are now ready. Her *Five Little Peppers*, called *A Child's Classic*, so steady is the demand for it, comes out in a new edition.

The history of *American Explorations in The Ice Zones*, is a record of which any nation might be proud. It could not well have been epitomized with greater skill and knowledge than has been shown by Prof. Nourse; and his volume should have a popularity not confined to the United States. *The (Edinburgh) Scotsman*.

REPORTS OF CASES.

SURPRISING RESULTS.

About the first of last May a lady of Port Byron, Ill., applied for a Treatment of Compound Oxygen. Her case was not a very promising one, as will be seen from the following extract from her letter:

"Unable to perform my daily duties as housekeeper. If I do nothing at all am quite comfortable, but exertion, either mental or physical, causes pain and rush of blood to the head, chest, and spine, and if continued always ends in great prostration. At times, have oppressed or asthmatic respiration. Almost constant pain, irritation, or uneasiness in spine, between shoulders. Using arms or hands or eyes much greatly aggravates and sometimes causes nausea. Generally sleep well; appetite good. This has been my condition for ten years. First, aggravated symptoms were brought on by a severe nervous shock twenty years ago, followed by a nervous fever, which hung about me for several years. Cannot bear the least stimulant."

A Treatment was sent, and after its use for the short period of two months, our patient made the following report of the great change wrought in her condition:

"I received the box of Compound Oxygen the first week in May, and commenced taking it immediately, according to directions, and found I could not follow them wholly with benefit. Was obliged to take less, or limit to one inhalation a day for two weeks. The effect of the full dose was prostrating, producing profuse perspiration and great languor, with nervous tremulousness. The third week, I omitted it altogether, and then commenced again, according to directions, and so continued to the present, with occasional interruptions.

"My health has decidedly improved in this time. The pain, which used to be constant in all my frame on the least exertion, is gone, and I can move about and work lightly without any. I think I did not mention chills in my letter of symptoms, but they were a part of my troubles; they seem to have left me entirely; and my skin, which used to be dry and burning, often causing me much suffering, obliging me to stay in out of the sun or from a heated room, is now soft and moist, inclined to profuse perspiration. I cannot express the relief this affords.

"Then the pain and heat in the spine is greatly relieved, and a complete relief to my lungs and heart, so that *drawing a long breath is a delight and a luxury*.

"The asthmatic conditions of chest all gone, and the gasping for breath on lying down or on waking in the night gone, and I can lie with only one pillow under my head at night, which also is a comfort.

"My limbs have lost their palsied feeling that made me unwieldy in going up and down-stairs, so that I feel a spring again as I used in time of health. My arms are also stronger in this respect. And now it would seem as if this was enough, as if it is all I ought to ask or expect of any remedy, to put me in a condition of ease after pain; but I want more. I want strength to do more.

"I am a little stronger, but strength does not seem to increase. I am sure that if anything can cure me it is the Compound Oxygen, but do you think, do you know, that broken or shattered nerves can be cured? I begin to think I must be content with a small measure of strength.

"But it has been an unspeakable help and blessing to me. I thank God daily for his grace to man in placing the knowledge of such a remedy for many fleshly ills within their reach. I hope you will not let the secret die with you, but pass it on to future generations.

"I have written this letter without suffering, which would have been impossible before taking your remedy. I am just beginning to get tired, and the heat and pain have begun in my spine, but if I stop now no prostration will result, and with rest the pain will subside."

"FIFTY PER CENT. BETTER."

A clergyman in Braintree, Vt., wrote, April 18th, 1884, giving us the following statement of his case:

"In August, 1883, I began to feel exhausted. In October cough began; throat was sore and voice husky. This increased until soreness reached from mouth to stomach. *Had no appetite and could not sleep*. Pulse from ninety to one hundred and ten. Stopped work for two months. When inflammation abated I began to have attacks of indigestion, which still continue. Have grinding pains in pit of stomach, often going through to the back. Liver and kidneys trouble me. Began preaching in January, 1884, and continued to April 1st. Lungs appear sound, but my voice is weak and my food fails to give nourishment."

A Home Treatment was sent on the 22d of April, and his first report was made May 22d, and was as follows:

"I have been taking your Compound Oxygen, a little more than three weeks, and certainly feel fifty per cent. better than I did when I began taking it. I am stronger; my head feels clearer; my back does not hurt me, and the pain has left my side and back almost entirely. Before I had taken the Compound Oxygen a week people began to say, 'Why, how much better you are looking;' and I felt as much better as I appeared."

A Treatise on Compound Oxygen is sent free of charge. It contains a history of the discovery, nature, and action of this new remedy, and a record of many of the remarkable results which have so far attended its use. Address,

DRS. STARKEY & PALEN,

1109 and 1111 GIRARD ST., PHILA., PA.



THE CHILDREN OF WESTMINSTER ABBEY.

BY ROSE G. KINGSLEY.

IV.

EDWARD THE FIFTH AND RICHARD, DUKE OF YORK.

A CROSS the wide roadway that runs past Westminster Abbey from the Houses of Parliament, stands a low group of buildings, facing the north door. Part of these are the Westminster Police Courts, and about one o'clock black-gowned and white-wigged lawyers may be seen rushing out to get their luncheon. The part of the buildings which fronts the road is the National Society's Depot, from whence maps and books, slates and pencils go to furnish all the village schools in England. Hundreds of people go in and out of the door every day. Thousands pass it by. But very few, I imagine, reflect on the meaning of the white plate on the corner, upon which is written: "Broad Sanctuary."

From its earliest foundation, Westminster Abbey shared with some thirty other English monasteries the right of "Sanctuary." Any man in danger of life or liberty, let the cause be what it might, was safe could he but once set foot within the precincts of the Sanctuary. No one could touch him. The monks would not violate this sacred privilege by giving him up. His foes dared not violate it by pursuing him and taking him by force. This right of Sanctuary, established in days when "law" meant the will of the strongest, was often useful in saving an innocent life that otherwise would have been sacrificed to some unjust tyrant.

"The grim old Norman fortress"—the actual sanctuary—stood on the present site of the National Society's Depot. But the whole precinct of the Abbey shared the privilege; and the space now covered by St. Margaret's Church and churchyard was often occupied by a vast crowd of distressed or discontented citizens who desired, as they called it, to "take Westminster."

Sometimes, if they were of higher rank, they established their quarters in the great Northern Porch of the Abbey, with tents pitched, and guards watching round, for days and nights together.*

* Memorials of Westminster Abbey. p. 405. Dean Stanley.

But to us, "Sanctuary" is specially interesting, as it is intimately connected with the short and tragic lives of Edward the Fifth and Richard, Duke of York, his brother.

In 1470, Edward the Fourth—betrayed by his brother Clarence, and by that terrible and splendid personage Richard Neville, Earl of Warwick, "The Kingmaker"—fled over seas with a small following to the court of his brother-in-law, Charles the Bold, in Flanders. His Queen, Elizabeth Woodville, was then living in the Tower, where Henry the Sixth, the deposed king, was imprisoned; and thus by a strange conjunction, the Yorkist Queen and the Lancastrian King were within that grim building at the same time. When Elizabeth heard that her husband had taken flight, and that Henry was to be restored to the throne, she came secretly by water from the Tower, and took Sanctuary at Westminster, with her three daughters and Lady Scroope "in greate penurie forsaken of all her friends." Here Thomas Millyng, the abbot, received her with kindness, sending her provisions "half a loaf and two muttons" daily. And here on the fourth of November was born her

faire son, called Edward, which was with small pompe like a poore man's child christened, the godfathers being the Abbot and Prior of Westminster, and the godmother the Ladie Scroope.*

The Queen remained in Sanctuary until the spring of the next year, when her husband returned in triumph to the capital two days before the great battle of Barnet. There Warwick the Kingmaker, was slain, the Lancastrian forces were broken up, and Edward was once more king of England. The Queen has given in her own words an account of her joyful meeting at Westminster,

when my lord and husband returned safe again and had the victory, then went I hence to welcome him home, and from hence brought I my babe the Prince unto his father, when he first took him in his arms.†

* Holinshed's Chronicle. Vol. 3. p. 300.

† More's History of Edward the Fifth, and Richard the Third.

But the poor Queen was destined to fly again to Sanctuary, in yet more sore distress. In April, 1483, Edward the Fourth died. Edward, Prince of Wales — the babe born in Westminster — was twelve and a half years old, and was living in some state at Ludlow Castle in Shropshire. He had a council of his own, composed chiefly of his mother's relations and friends; foremost among whom was

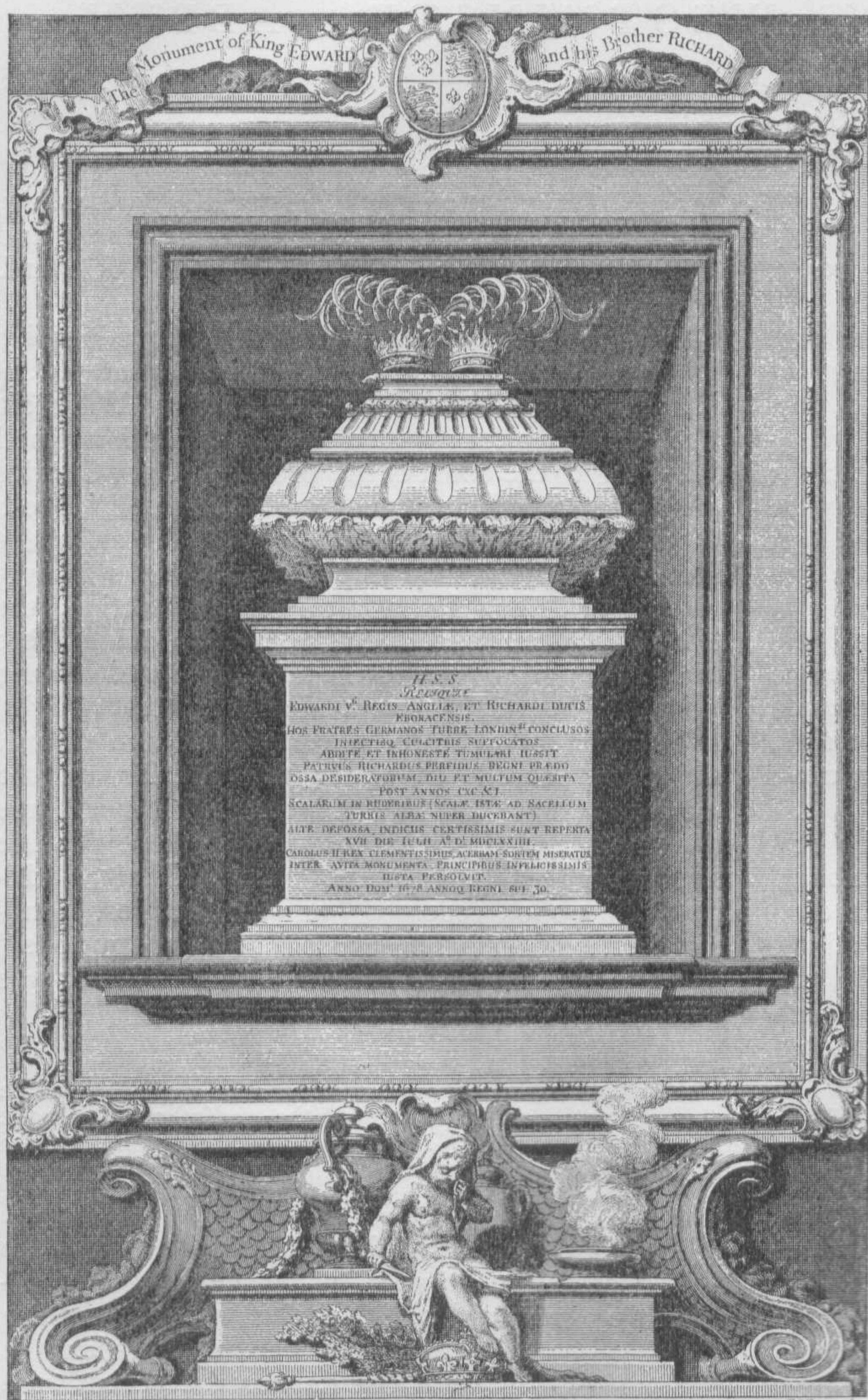
tion "at his school," his meals, and his sports. No man is to sit at his board but such as Earl Rivers shall allow; and at this hour of meat it is ordered "that there shall be read him noble stories, as behoveth a prince to understand; and that the communication at all times, in his presence, be of virtue, honor, cunning (knowledge), wisdom, and deeds of worship, and of nothing that shall move him to vice.*

From this quiet, happy life the little boy was rudely awakened by his father's death. He was proclaimed King of England under the title of Edward the Fifth; and a fortnight later set out for London with his uncle Lord Rivers, Lord Grey, Sir Thomas Vaughan and a large retinue. All went well until they reached Stony Stratford, a little distance from Northampton. There the young king stayed for the night with his attendants, while Lord Rivers returned to Northampton to meet the late king's brother, Richard, Duke of Gloucester, who was hurrying down from the Scotch marches — ostensibly to pay homage to his nephew.

A struggle had been long impending between two rival parties in the state. On one hand the Queen, with her relations, who had been raised to wealth and power by her marriage. On the other, Gloucester, with many of the old nobility, whose jealousy had been roused by the sudden advance of the Woodville family. The king's death and his successor's tender age must inevitably bring about a collision. It was now merely a question of which faction could out-maneuvre the other. Richard of Gloucester struck the first blow. Rivers was arrested at his inn.

Gloucester and the duke of Buckingham then rode on to Stony Stratford, where they found the poor little king with his company "ready to leap on horseback, and depart forward." But it was too late. The dukes arrested Vaughan and Grey, and brought the frightened boy back to Northampton. "He wept, and was nothing content, but it booteth not."† Richard himself took his nephew to London; and at the young king's public entry on the fourth of May he bore himself "in open sight most reverently to the prince, with all semblance of lowliness."‡ The peers also took the

oath of fealty. But it was only "a semblance." Able and unscrupulous, Richard of Gloucester had long been meditating a scheme of daring ambition. The first step was accomplished. He had posses-



MEMORIAL URN IN HENRY THE SEVENTH'S CHAPEL.

Earl Rivers, his mother's brother, and his own half brother, Lord Grey (son of the Queen by her first marriage to John Grey). Shortly before his death the king had drawn up ordinances for Prince Edward's daily conduct,

which prescribe his morning attendance at mass, his occupa-

* C. Knight's History of England. Vol. 2. p. 176.

† More.

‡ More.

sion of his young nephew's person. Now he was appointed "Protector of England." And during poor little King Edward's short reign his signature was used as an instrument for the ruin of his mother's kindred and friends, and for the aggrandizement of his uncle Gloucester's party.

The Queen, meanwhile, saw only too clearly whither these events tended. Terrified at Richard's successful blow, seeing that her own faction was utterly undone, and fearing for the lives of herself and her children, she flew again to her well-known refuge. She left the Palace of Westminster at midnight with her youngest son, Richard Duke of York, and her five daughters, and lodged in the "Abbot's Place."

It was in one of the great chambers of the house, probably the dining-hall (now the College Hall) that she was received by Abbot Esteney.*

Says Sir Thomas More. The Queen sate alow on the rushes all desolate and dismayed, and all about her much heaviness, rumble, haste and business; carriage and conveyance of her stuff into Sanctuary; chests, coffers, packers, fardels, trussed all on men's backs; no man unoccupied—some lading, some going, some discharging, some coming for more, some breaking down the walls to bring in the next (nearest) way.†

In the midst of all this dismay and confusion the Archbishop of York, Thomas Rotheram, Chancellor of England, brought the Queen the Great Seal, trying to comfort and encourage her with a message from the Lord Chamberlain Hastings, who thought matters were not so hopeless as she imagined. But she mistrusted Hastings as "one of those that laboreth to destroy me and my blood." The Archbishop left the Great Seal with her,

and departed home again, yet in the dawning of the day. By which time, he might in his chamber window (his palace was on the site of the present Whitehall) see all the Thames full of boats of the Duke of Gloucester's servants, watching that no man should go to Sanctuary; nor none could pass unsearched.

The Queen seems to have withdrawn into her old quarters in the fortress of the Sanctuary itself, where she had before found safety, and the Protector, determined to get possession of both his nephews, proposed at his council in the Star Chamber, that if she would not give up the Duke of York to keep his brother company, that he should be taken from thence by force. But this proposition only served to show in what respect the privilege of Sanctuary was held. The archbishops and spiritual lords promptly refused their consent to such a sacrilegious measure. Said the Archbishop of Canterbury,

"God forbid that any man should for anything earthly, enterprise or break the immunity and liberty of the sacred Sanc-

tuary, that hath been the safeguard of so many a good man's life.*

The Protector then tried to show that as the child was incapable of such crimes as needed sanctuary, so he was incapable of receiving it. This ingenious bit of casuistry convinced some of the listeners; and the archbishop and several lords went at once to Westminster to try to persuade the Queen to give up her boy. But she resisted "with all the force of a woman's art and a mother's love."†

In what place could I reckon him sure, if he be not sure in this Sanctuary, whereof was there never tyrant yet so devilish that durst presume to break. . . . If examples be sufficient to obtain privilege for my child I need not far to seek; for in this place in which we now be (and which is now in question whether my child may take benefit of it) mine other son, now king, was born and kept in his cradle, and preserved to a more prosperous fortune. . . . And I pray God that my son's palace may be as great a safeguard unto him that is now reigning, as this place was sometime unto the king's enemy.

Gallantly had the poor mother fought for her child's liberty; and at last wearied out she ended with a fierce and terrible denunciation of her persecutors:

I can no more, but *whosoever he be that breaketh this holy sanctuary, I pray God shortly to send him need of sanctuary where he may not come to it.* For taken out of sanctuary would I not my mortal enemy were.‡

At length, pledging both "body and soul," the archbishop prevailed; and the Queen determined to deliver up Prince Richard as a sacred trust. Then turning to the child she took leave of him in those well-known and most pathetic words:

"Farewell mine owne sweete sonne, God send you good keeping; let me kisse you yet once ere you go, for God knoweth when we shall kisse together againe." And therewith she kissed him and blessed him, turned her back and wept and went her way, leaving the child weeping as fast.§

Poor mother! Her fears were only too well founded. She never saw her sons again. When little Richard was taken into the Star Chamber, the Protector took him in his arms and kissed him saying, "Now welcome, my Lord, even with all my heart." The boy was then conveyed to the Bishop of London's palace, where his brother, the young king, met him with delight. This was in the beginning of June; and the two children were next removed to the Tower (under pretext of preparing for the coronation fixed for the twenty-second), "out of the which," says Sir Thomas More, "after that day they never came abroad."

Richard Duke of Gloucester's policy had been

* More.

† Memorials of Westminster Abbey. p. 412.

‡ More.

§ More.

* Memorials of Westminster Abbey. Dean Stanley. p. 411.

† More's Life of Edward the Fifth. p. 40.

developing fast since the day he took possession of the young king at Stony Stratford. The Queen's party were all in prison — many of them awaiting execution. Shakespeare has vividly described how Richard ridded himself of Lord Hastings,* the late king's favorite adviser, who was the only remaining check on his plans. After Hastings's execution the Protector declared that Edward the Fourth's marriage was invalid, and that his children could not therefore succeed to the crown. After a faint show of reluctance he allowed himself to be proclaimed king, under the title of Richard the Third, and was crowned at Westminster on the sixth of July.

Every one knows the tragic end to the story. While the little boys lived their uncle's throne was insecure. They were still in the Tower. Rivers their uncle was beheaded; so were their half-brother Grey and many more of their mother's kinsmen and friends. A mystery must always hang over this dreadful deed. Whether by Richard's direct order, or simply in accordance with his known but half-expressed wishes, the two children suddenly disappeared — murdered, as it was alleged, by their uncle. Sir James Tyrell, when tried for high treason in Henry the Seventh's reign, only eight years after, confessed to the murder. And it was commonly supposed that the boys were "buried in a great heap of rubbish near the foot stairs of their lodging; where is now the raised terrace."† But the priest of the Tower having died shortly after, "left the world in dark as to the place."

For nearly two hundred years nothing more was known. In Charles the Second's reign, however, orders were given to rebuild some offices in the Tower. In taking away the stairs going from the King's Lodging into the Chapel of the White Tower, the workmen found a wooden chest buried ten feet deep in the ground, which contained the bones of two boys, about eleven and thirteen years of age. Charles the Second hearing of this discovery ordered the bones to be carefully collected and put in a marble urn, which he placed in Westminster Abbey, with an inscription in Latin of which the following is a translation:

Here lie
The Reliques
of Edward the Fifth King of *England*, and Richard, Duke
of York.
These brothers being confined in the Tower,
and there stifled with Pillows,
Were privately and meanly buried,
By order of
Their perfidious Uncle *Richard* the usurper;

* King Richard Third. Act III., Scene IV.

† Dart. Vol. I. p. 170.

Whose bones, long enquired after and wished for,
After two hundred and one years
In the Rubbish of the Stairs (i. e. those lately leading to
the Chapel
of the *White Tower*)
Were on the 17th day of *July*, 1674, by undoubted Proofs
discovered,
Being buried deep in that Place.
Charles the Second, a most compassionate Prince, pitying
their severe fate,
Ordered these unhappy Princes to be laid
Amongst the monuments of their Predecessors,
Anno Dom 1678, in the 30th year of his Reign.

The mean and ugly little urn, which was the only monument that "most compassionate Prince" could afford to the memory of these two children, stands at the end of the north aisle of Henry the Seventh's Chapel, close to their great kinswoman, Queen Elizabeth.

But let us turn from this dismal theme to something much more cheerful. While little Richard Duke of York was in Sanctuary with his mother, he must have often run across under the shadow of the great elms that stood before the Abbots' House, to the Almonry, a little building near by. For to the Almonry eight years before a wise man had come with a strange new invention. He hung a red pole at the door for a sign; and soon all the learned men in the kingdom began to gather at the Almonry of Westminster, and talk to William Caxton, the printer of books. For he it was who had come from Bruges in Flanders, bringing with him the first printing press that had ever been seen in England. And at Westminster he worked away for fifteen years, translating and printing with ceaseless industry.

It is therefore no mere flight of fancy, but a supposition founded on good evidence, that little Prince Richard may have beguiled some of the weary hours of his captivity by visits to the Almonry, watching the curious presses which struck off sheet after sheet of printing, and talking to the good-natured printer, who must, by all accounts, have been the cheeriest and busiest of men.

The Almonry is gone.

Bareheaded boys from Westminster School play foot-ball under the few remaining descendants of the old elms in Dean's Yard, and hurry in and out of the gateway with their school books under their arms. All that remains of the ancient Sanctuary is that white plate with blue letters. But within the great Abbey, the two little princes are in Sanctuary once more; never again to leave it while the fabric stands. And William Caxton sleeps in St. Margaret's Church close by, while his memory lives in every printed page of the English tongue.

SOUVENIRS OF MY TIME.

BY MRS. JESSIE BENTON FREMONT.

IV.

WASHINGTON IN PAST DAYS (*continued*).

IT was during one of these resting seasons that we had a royal visitor, the Prince de Joinville, who came to Washington in October of '41 to make his respects to the President as his frigate had touched in at New York. As the son of the "King of the French," he was especially welcomed; and his ship and himself had interested the public from their duty of bringing home from St. Helena the remains of the great Napoleon.

The President gave for him, not only the official dinner of ceremony, but a ball also. It was said there was Cabinet remonstrance against dancing in the White House as a "want of dignity," but Mr. Tyler rightly thought a dance would best please a young navy man and a Frenchman, and we had therefore a charming and unusually brilliant ball. All our army and navy officers were in uniform as the Prince and his suite wore theirs, and, for the son of a King, the Diplomatic Corps were in full court dress.

Writing chiefly for girls I may be permitted to tell that on that occasion I had the pleasure of wearing my first real Paris dress—of fine muslin and valenciennes. A cousin from New Orleans whose toilettes were prepared for a season at Saratoga and Newport, had been with us when her father died; and as was the Southern fashion, she gave her pretty things among her friends.

Mrs. Tyler was an invalid and saw only her old friends; but Mrs. Robert Tyler, the wife of the eldest son, was every way fitted to be the lady of the White House. From both her parents, especially her witty and beautiful mother, she had society qualifications and tact, while the President's youngest daughter was beautiful as well as gentle and pleasant.

Mr. Webster as Secretary of State, was, next to the President, the chief person. For fine appearance, for complete fitness for that representative position, both Mrs. Webster and himself have never been surpassed.

The Prince was tall and fine looking, and Miss Tyler and himself opened the ball, while those of us who knew French well were assigned to his officers.

We had remained in the oval reception room until the company was assembled, and then, the President leading, the whole foreign party were taken through all the drawing-rooms, ending by

our taking places for the *Quadrilles d'honneur* in the East Room; that ceremony over, dancing became general, and we were free to choose our partners.

The Prince must have had pleasant memories of his American visit for, later, he came back bringing a young son, *Pierre de Penthièvre*, to our Naval Academy at Annapolis, where, I have heard both foreign and home authorities on education say, the course of training was uncommonly full, useful and developing.

There the lad was promptly re-christened by the midshipmen, *Peter Ponteever*, and became a favorite. On one of their summer cruises they went to Lisbon, where his cousin, the King of Portugal, had him out for a week's visit; but the little duke came back before it was half over, liking best the friendly equality of his cadet comrades. This consequence of American education was, no doubt, one result his father intended; for that branch of the Orleans family understand real education. The influence of one woman has told for good on them for more than a hundred years. When Madame de Genlis took the post of instructress in the family of that Duke of Orleans who voted for the execution of his cousin, Louis the Sixteenth, a new era began for them, and they have been the wiser and better all through for the broader education she directed.

When Louis Philippe thought to please the French, and rouse their feelings by having the body of Napoleon brought to France to be laid in the midst of his battle-worn veterans at the Hotel des Invalides, he succeeded; but in the way Shakespeare says the engineer may succeed with his own petard. His "act of magnanimity," so far from making him stronger, only supplied a fresh strength against him, and the French made another of those radical changes of government of which they have averaged one in every ten years for the century we have been an "Experiment in Government," as they *used* to say in Europe.

Ready-made phrases are handy for people who do not do their own thinking, but a little examination will show these do not always fit. That phrase of an "experiment in government" has a twin in one on our foreign appointments; that they make us the "laughing-stock of Europe." Look into this for yourselves and you will find among our representatives, Franklin and Monroe, Clay and Adams, and Buchanan, and the dignified King, of Georgia, and Rush of honorable Philadelphia name, and John Randolph and Washington Irving, and Everett and Motley, and many another less known.

Science, patriotism, genius and character, and keen honor and devotion to their country have done us honor abroad. We know all about the exceptions and that they *are* queer, and sometimes wrong, but do foreign countries always send us their best?

A diplomatic post had really great importance before steam and electricity brought the heads of nations so near each other that no misunderstanding could grow. Now, it is chiefly useful to *prevent* misunderstandings and to keep up the sort of polite interest which only comes from constant personal intercourse.

Both France and Belgium were poorly represented at the time of this visit of the French Prince, so that there was no general entertainment given by either of their ministers. One, the French, was so occupied in the care of his health that he thought only of that — he had brought a physician as part of his legation, and never went out without him, not even to visit. As the King of Belgium was brother-in-law to the Prince, some attention was due from the Belgian minister; but *he* was the “laughing stock” of Washington from his stinginess — not economy, but mean savings. His chief end and aim was to save money. He accepted all invitations to dinner, but when he *had* to invite people the dinner would be all right, but he would tell the price of different things, and mourn that of all that food none would be properly saved or it would last him a week. He grieved over his colored cook who would not take care of the small bits of meat — “she feeds chickens on good pieces that would make croquettes!” Naturally the woman had no interest in *any* savings. She was a slave and her owner received her earnings; why should she take care of two men’s interests?

He may have had fine qualities, but I never heard of them. He, as well as some others, looked upon the United States as an inferior sort of country where no restraint need be put upon their real nature, and his ruling passion was the love of money; not “for the glorious privilege of being independent,” but for its own sake.

His Secretary of Legation was in complete contrast, and an honor to his country and of use to it, and to ours also, by his intelligent comprehension of our wonderful resources for emigration. His family were of governing position, and he was to fit himself for high trusts by knowledge of many men in many lands. He only knew book-English when he arrived, but as soon as his English should improve enough he was to go and investigate for his government the ways of living and resources of the

farming people in our Western States and Territories, with a view to future emigration from Belgium. My father took much interest in aiding him in this, and for himself he became one of our most welcome intimates.

It pleased us all that he constantly spoke of his mother who evidently was his friend and companion (he was in the early twenties).

Furnished with many letters of introduction, he went for the summer and autumn on his journey of observation through what was then the far West; Indiana, Illinois, Missouri, etc., etc. He had already become assured that plenty governed, but he waited to report what he should actually see.

When he was back in the winter a new world had been revealed to him — Our New World.

He had gone from surprise to surprise. He had asked to stay in the family of a farmer that he might see the harvesting and gain the English of farming uses. It was like being the guest of a king, he said; money he found would be an insult. He had to make it a visit, and later send a remembrance to his hospitable entertainers.

It was in one of the free States where all worked, “yet they talked politics,” he said; “the farmer’s wife even. She also made excellent bread and of so many kinds! Of wheat and of maize, and many fanciful cakes with sugar and eggs and spices, and always *buckets* of milk in addition to great tins of tea and coffee! *And THREE times a day MEAT!* And not only beef, but game and poultry in profusion, and orchards of peaches and apples, while potatoes and cabbages were of course and in endless profusion.”

“I dared not write all this to my mother,” he said. “I did not at all write in detail to my government; I reserved my facts for my return. But I wrote my mother of my life on this farm, of its prodigal abundance and that everywhere was the same when a little time and industry had brought out the return for labor. I did not venture to tell her of the meat three times a day, but put it three times a week. And she wrote me imploring I would be careful and not let my youth and the pleasure of novelty carry me into wild generalization — but to be calm and exaggerate nothing. What shall I say,” he laughed; “how can I make even my mother believe about the bacon and cheese and bread always there for every one — and the sweetmeats and honey! I could not believe you myself when you told me of this; how can they believe who know how many of our people get meat on feast days only?”

ENTERTAINMENTS IN CHEMISTRY.

BY HARRY W. TYLER.

III.

THE CHEMISTRY OF THE CANDLE.

WHILE studying air, we used the burning candle to ascertain what gases composed it. Now we will study the candle itself. A candle is a small cylinder of some organic substance, usually of animal origin, with a wick through the centre. This humble servant of our grandmothers has long since been discarded for the more brilliant lamp, gas jet, or electric light; but it is a type, and for our purpose the best type, of all flames.

First, we light the candle. If new, it begins to burn slowly, with but a small flame. As it continues to burn we see that the wick rises from a little cup of hot oil, melted by the heat of the flame. The wick is merely a conductor of the oil up to the flame above. As the oil approaches the flame, it becomes so hot that it is converted into vapor or gas. This gas, as we see, burns with a luminous flame, just as does coal gas, so that finally nothing remains of the candle but a little ash from the wick. All flames, indeed, are simply bodies of burning gas; the kerosene of our lamps is drawn up through a wick and burned as gas, just as is the melted tallow or paraffine of the candle.

If we examine the candle-flame closely, we shall discover three distinct sections. Most conspicuous, of course, is the yellow cone which gives the light; but around its base and sides we discover a shell of gas burning with only a pale blue light. Inside the bright cone we can hardly see; but on bringing a piece of writing-paper, or a cold plate, down upon the flame, and then withdrawing it quickly, we find upon it, within a dark charred ring, a light place scarcely scorched. Hence we infer that, inside the bright burning cone, there is a section, or inner cone, of little heat, and consequently little light.

Next we take a short piece of glass tubing about one eighth inch in diameter—or a broken pipe-stem—and hold one end in the centre of the flame. At the outer end we observe an unpleasant odor, and on applying a match, we are able to light the escaping gas. Therefore the inner cone of the flame is the gas constantly formed from the oil by the heat of the flame, but only burning when it reaches the surrounding air.

As we have already learned, the burning candle

changes the oxygen of the air into carbonic acid. Now carbon, when burned as charcoal, anthracite, or diamond—for they are only different forms of the same substance—unites with oxygen to form carbonic acid, and this gas contains all the solid carbon burned, with nothing else but oxygen. Hence, as the burning candle produces carbonic acid, it must contain carbon.

But the candle is not composed wholly of carbon. If we pass the burning candle before a cold mirror, the latter shows a thin film of moisture. Likewise a lamp-chimney is covered with moisture just after the lighting. We know that water is composed of two gases, oxygen and hydrogen, for we can separate it into them, and we can make it by combining them. (Air, indeed, is composed of two gases, but as they are only mixed, or *physically* combined, it differs little from its oxygen and nitrogen. But the two gases which form water are *chemically* combined, each smallest conceivable particle or atom of the hydrogen being united firmly to its own oxygen, so that the product is very different from either of them. This distinction is very important, and of wide application.)

Now hydrogen is an invisible gas and the lightest of all substances. Yet we know, from the carbonic acid and the water formed by the burning candle, that the white tallow, or paraffine, is composed of both carbon—which we are acquainted with as black, dirty coal—and hydrogen, which we shall become acquainted with as an invisible gas.

Now we can understand the chemistry of the flame. The gas rises from the candlewick so hot that it burns, that is, the particles or atoms of oxygen in the air seize upon those of the carbon and hydrogen in the gas, tear them apart, and combine with them to form with the former, carbonic acid, and with the latter, water—the water being so hot that it passes away as invisible steam. The energetic chemical action causes, as do most chemical actions, considerable heat, and the tiny atoms of carbon before they are turned up by the oxygen, become so hot that they shine, and we have light. The dark inner cone is filled with gas which does not burn, because no air can reach it; the luminous cone is composed of carbon atoms heated white-hot by burning hydrogen, and burning themselves as they pass onward into the pale-blue region, where air is abundant.

One principle of the flame needs to be emphasized. Carbon alone—as charcoal—gives no flame; hydrogen alone gives only a pale-blue

flame. But if we rub together two pieces of charcoal so that the dust falls into the scarcely visible flame of the alcohol lamp, or the dim flickering blue flame over a new coal fire, instantly we have light. Or if we hold an iron wire in the flame it also shines. It is therefore evident that the light depends not simply upon heat, but also upon the presence of solid matter to be heated. In our candle flame we have the burning hydrogen and the burning carbon, each giving little light, but we have also the solid particles of carbon, after their hydrogen atoms are torn away, heated white-hot before burning up themselves.

When we think of the countless flames and fires

in the world, we shall no longer wonder that carbonic acid is everywhere present in the atmosphere. But what might be a dangerous surplus is gradually taken up by every living leaf, for upon carbonic acid depends the life and growth of forests which will perhaps restore to our grandchildren the fuel we burn to-day.

It may perhaps be a surprising thought, that our lungs and arteries are really furnaces in which dead matter is burned by the air we breathe! If you doubt it, blow through a tube into lime water, and you will find that your lungs, like the candle, give off carbonic acid. Then breathe upon a cold mirror, and it becomes moist.

BOYS' HEROES.

BY EDWARD E. HALE.

IV.

HANNIBAL.

WHEN the WIDE AWAKE asked me to make a list of the heroes who interest intelligent boys, I consulted many friends, and of course we did not always agree. But I think they all said that Hannibal should be on the list, yet I think none of them said why. I believe he stands out in the memory of boys who have read more or less of Roman history, as none of the men do who were opposed to him; though many of these were certainly great men, and though we know much more of them than we know of him. Fabius, Marcellus, Cornelius Scipio, for instance, are all of them men remarkable for what they were and what they did; they fill important places in Roman history; their lives are fully and well written. But I do not think any one would name them on a list of boys' heroes.

I should account for this fondness for Hannibal, wherever it exists, chiefly by the fact that he beat the Romans so often, and kept them under so long. It is just as one likes Hector, because being on the weaker side he held his own so well against the Greeks who in the end were to crush him and his. Doctor Johnson says you cannot see two dogs fighting without sympathizing with one dog or the other. If this is true, I think right-minded people would generally sympathize with the weaker dog, supposing that neither dog had forfeited sympathy. This is certain, that as schoolboys wade along through the rather dull history of the Roman republic, which, as taught them, is only a chronicle of five centuries

of war, they tire of the steady story of brute success. It is like watching a pile-driver all day long, as it knocks the piles down into the mud. You would be glad to have one pile rebel and refuse to go down. So, when Brennus at the head of his Gauls, or Hannibal at the head of his Carthaginians, turns the tide of luck for a few years, you are much obliged to them if it were only that they bring some variety into a tedious story.

Then there is the pretty incident, where his father takes him as a little boy to the altar of his country, and makes him swear hostility to Rome. You and I, who are still boys, like to think that a boy can make up his mind, early in life, what he will do, and what he will be, that he can keep on the lines he proposed then, and come out triumphantly, as for nearly thirty years at least after his vow Hannibal did.

The little story is certainly true. And I suppose there were plenty of people in Carthage who held to a peace policy. I suppose they said that this hatred of the Romans was a very old-fashioned prejudice. I suppose they said that a new generation of Romans had grown up, that they were amiable Romans and good Romans, and that they spoke the Carthaginian language quite well, and that they liked to buy the Carthaginian figs and that, in short, they were very different Romans from the Romans whom Hannibal's father hated, and whom the little boy had sworn to overthrow. But Hannibal did not believe such people when he came to be a man. He had found out, somehow or other, what is the only secret of success, namely, that only he who endures to the end shall be saved.

He did not mean to have his nation put up with little aggressions or great aggressions. He did not mean to have Rome cut in on her colonies or interfere with her citizens in their trade. Up and down the Mediterranean he meant that the prestige of a Carthaginian citizen should be as good as that of a Roman citizen. And he would have gained this, if his people had stood by him.

Some people will tell you that they failed because theirs was a mercantile state, and their government the government of merchants. It has been quite the fashion in England, for the last thirty years, for grumblers to say this, and to warn England that if her government is carried on in the interests of merchants, she will go to destruction as Carthage did. You will find England called the "modern Carthage" in satires and philippics. But I do not believe it can be proved that Carthage failed because she was governed by merchants. On the other hand I think that the resources which Carthage had gained from mercantile adventure, such as the gold and silver and tin and copper and iron which her seamen brought her from distant mines, with the skill of those seamen, and the vigor of her adventurers — I think that these gave her the means to carry on the struggle with Rome. Rome was not what we should call a mercantile power but a military power. That is, the first thought of each citizen was not trade but art.

I have said the Carthaginians failed because they could not hold on. Their policy was vacillating. They deserted Hannibal who never deserted them. They could not endure to the end. If anybody wants to know why they finally went to pieces and disappeared in the long struggle with Rome, he must find out why they could not hold on.

Well, the answer to that question is the same which you have when you ask the same question about the people of Jericho and Ai and all the Canaanites whom Joshua and his army found in Palestine, a thousand years before the time of Hannibal. Those people were of the same race as the Carthaginians, who in fact emigrated from Tyre — some people think because the Israelites pressed them in Southern Syria — and they sought new homes when they were crowded out. When Virgil calls Dido "Elissa," we ought to remember it was the same name as "Jezebel" who was Dido's relative, and could have understood her if they could have met. Now the Canaanites could not hold on. They could not stand against the persistent pressure of the Israelites though their armor were as good, their tactics as good and though they fought for their homes.

The weakness of Carthaginians and Canaanites is here. Such worship as they had — it would be a shame to call it religion — is a worship of things that they see. Instead of what we call morals, instead of right and wrong, their rulers, teachers, priests are seeking personal physical enjoyment.

Nobody cares for the word "OUGHT" or for the reality it expresses. Each man cares for what pleases his taste, his eye, his ear, or some of his senses. This is what is meant when it is said they worship Belial, and Moloch and Thammuz, while it is said that the conquering Hebrews worship an unknown God who has no name but "I am."

Now the Romans were not people who made a great deal of the external observances of worship, though they did not neglect them. But they did make a great deal of the word "Right," and of the idea in the word "Ought." When Regulus went back to Carthage to die, because he had said he would, he showed the Carthaginians something which they did not understand or comprehend. A Carthaginian would have lied under these circumstances. The Carthaginian would have elected present comfort. The Roman had an idea of eternal truth. The Roman therefore in the days of the Republic could endure to the end.

Hannibal was the son of Hamilcar Barca, a Carthaginian chief who hated the Romans, and led the Carthaginian party which insisted on war with them. Hannibal was born in the very year when his father was appointed to the Carthaginian forces in Sicily. He did not succeed there, and the Carthaginians lost Sicily. Hamilcar went to Spain afterwards as the Carthaginian commander there. He took the boy Hannibal with him, though he was but nine years old. And it was then that he made him swear eternal hatred to the Romans at the altar in Carthage. Hannibal never forgot this. He told the story of it to Antiochus, not long before his own death. Here is his own account of it:

When I was a little boy not more than nine years old, my father offered sacrifices to Jupiter the Best and Greatest, on his departure from Carthage as general in Spain. While he was conducting the sacrifice, he asked me if I would like to go to the camp with him. I said I would gladly, and began to beg him not to hesitate to take me. He replied, "I will do it if you will make the promise I demand." He took me at once to the altar, at which he had offered his sacrifice, he bade me take hold of it, having sent the others away, and bade me swear that I would never be in friendship with the Romans.

To this boy's vow he was always true. He could not have had a better school for war than was Spain, nor a better teacher than his father. The Carthaginians were establishing their colonies in the southern part of Spain, the Romans were strengthening their allies in the northern part. The river Ebro, which they called Iberus, had been agreed upon as a dividing line between the two empires. The Spanish tribes were by no means easy under their foreign rulers, and were constantly rebelling. Hannibal loved the open air, and he loved war. He was indifferent to personal luxury. He did not sleep because it was night, but because his work was done. He did not rise from bed because it was morning, but because he had something to

do. So they say he was indifferent to day or night. His dress was always simple, but his arms and his horses were always of the best. When he was so young as to be under command, he was always a favorite with his superiors, and then and afterwards he was always a favorite with his army. It seems to have been taken for granted from the beginning that he was to be a great commander. He commanded the Carthaginian cavalry when he was eighteen years old, and took command of the whole army on his father's death, when he was hardly twenty-five or twenty-six. When he took his army across the Alps, he was hardly older than Napoleon was when he did the same thing twenty centuries after.

So soon as he had an army at his command he pounced on Saguntum, a city in alliance with the Romans. Saguntum had been founded by Greek colonists who came from Zacynthus, from which it derives its name. There is a Spanish village at the place now called Murviedro, which word is the remainder of the Latin words *Muri veteres*, "the old walls." After a most obstinate defence, Saguntum was totally destroyed and Hannibal immediately proceeded to march against Rome.

He propitiated the tribes in Gaul who did not like the Romans any too well. He crossed the Rhone with his army in face of the advance guard of the Romans. It is a great military problem how to cross a great river in face of an enemy, and any boy will be interested in seeing how Hannibal brought his large army forward, especially his forty elephants. Keeping well inland so as to avoid the Roman army near the coast, he approached the Alps which he was determined to cross before winter. His success in bringing his army over, though with loss, is regarded as one of the great achievements in war.

Livy's account of it is picturesque. But I — who sometimes believe that I have been over the same pass, at the same season of the year, namely October — think Livy made his account rather from some hard experiences of his own in the mountains, than from any chronicles which had lasted two hundred and fifty years. It is in this story that the famous account comes in of their cutting through the rocks by heating them and pouring on vinegar.

The soldiers being then set to make a way down the cliff, by which alone a passage could be effected, and it being necessary that they should cut through the rocks, having felled, and lopped, a great number of large trees which grew around, they made a huge pile of timber; and as soon as a strong wind fit for exciting the flames arose, they set fire to it, and, pouring vinegar on the heated stones, they render them soft and crumbling. They then open a way with iron instruments through the rock thus heated by the fire, and soften its declivities by gentle windings, so that not only the beasts of burden, but also the elephants, could be led down it.

Now if you ask me what I think about this, I should say that Hannibal was a much better en-

gineer than Livy. He undoubtedly had with his army the best engineers of the time who knew the best processes of the time for quarrying and reducing rock. Given the problem which was to improve the mountain trail, so that an army of seventy thousand men might descend from the summit in four days, they undoubtedly did things that very much surprised the natives. Among those things such enterprises as this of heating and cracking rock would have been most likely to be remembered by tradition. And, if the use of vinegar or any other acids came into the quarrying of that time, the mountaineers would very naturally have remembered it.

But I should not advise any member of the Appalachian Club who wanted to improve the pass through Carter's Notch, which in my judgment needs improvement, to rely on a bottle of vinegar.

By the time the army was in the plains of Lombardy, it was much reduced. Hannibal had started from Saguntum with a good force, but he had sent back many, some I suppose had deserted in Gaul, and in the passes of the Alps he had lost great numbers. What he had, however, were picked men, and in the spring, refreshed by their winter in the country, they met Flaminius with his army of Romans. The Carthaginians were hardened and trained by their winter's experience. The Romans, though they had been worsted at Trebia and the Po, were confident with true Roman conceit. But they had been recruited at a time, when, according to Livy, the Romans were more sunk in sloth and unfit for war than ever. Flaminius himself was headstrong and rash, and Hannibal fooled him to his ruin. When you go to Italy, you will not find it hard to see the "reedy lake of Thrasymene" where the Roman army was ruined and Flaminius killed. You can see it from the railway as you ride from Florence to Rome. Here is Lord Byron's description of it:

I roam

By Thrasimene's lake, in the defiles
Fatal to Roman rashness, more at home;
For there the Carthaginian's warlike wiles
Come back before me, as his skill beguiles
The host between the mountains and the shore,
Where Courage falls in her despairing files,
And torrents, swollen to rivers with their gore,
Reek through the sultry plain, with legions scattered o'er.

Far other scene is Thrasimene now;
Her lake a sheet of silver, and her plain
Rent by no ravage save the gentle plough;
Her aged trees rise thick as once the slain
Lay where their roots are; but a brook hath ta'en —
A little rill of scanty stream and bed —
A name of blood from that day's sanguine rain;
And Sanguinetto tells ye where the dead
Made the earth wet, and turn'd the unwilling waters red.

The Roman people were like all nations who have not had recent experience of war at home, and when they saw their legions march out well-ap-

pointed, they had been quite sure of victory. Of a sudden one straggler returning, announced what they could not bear to believe, that their consul was dead and their army routed. It was then and thus that this city of Rome began to feel the pressure of that long war which lasted sixteen years, while Hannibal ravaged one part of Italy and another. It was the beginning of the training which was to cure Rome, for the moment, of her luxury and to lift her, for the time, from her degeneracy.

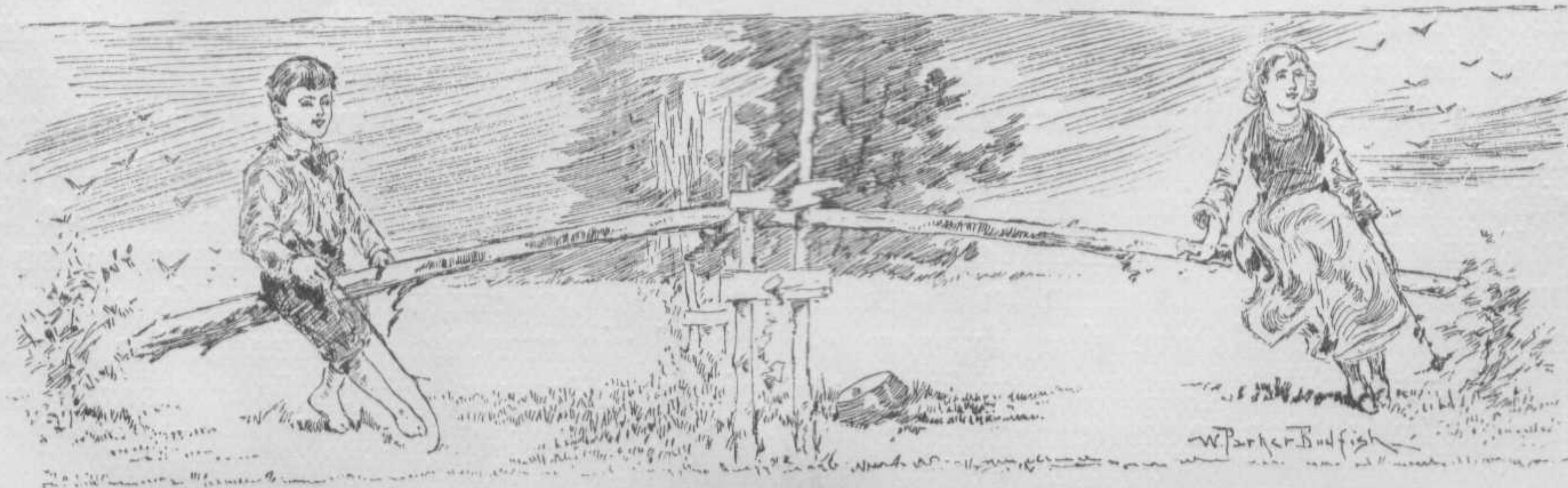
You have heard it said that the luxuries of Capua, the chief city of Campania, were really what defeated Hannibal. It has become a proverbial expression to say of any luxury which destroys a successful man, that it is his "Capua." But I think the best opinion of the best military men relieves Hannibal from the charge implied in this sneer. It is very easy for you and me, sitting at our ease here two thousand and one hundred years after all this happened, to say that, after routing the Roman army at Thrasymene, he should have marched directly on Rome and destroyed it. But he certainly knew his business better than we do. He passed by Rome into Campania, and made his headquarters for a time at Capua. For the next fifteen years and more he did very much what he chose in Italy, often advancing to the very walls of Rome, but never strong enough to storm a city where by this time every man was a soldier, nor to blockade it so as to starve it into submission. In this time he partially regained the position of Sicily, which the Carthaginians had lost after the first Punic War. He was cruelly disappointed and the fate of the world was changed when Claudius Nero, the Roman commander in the north of Italy, defeated Hasdrubal, Hannibal's brother, who was bringing him reinforcements. Nero sent Hasdrubal's head into Hannibal's camp, and when he saw it, he sighed and said, "I see the fate of Carthage."

The end came when Cornelius Scipio built a Roman fleet, carried an army across to Africa and threatened Carthage itself. It is from this bold enterprise that we take our proverb, "He carried the war into Africa." The Carthaginian senate could not endure to the end. They began sending

for Hannibal, who at first would not come. At last he came and the great battle of Zama followed, one of the critical battles of the history of the world. Whatever advantage the Carthaginians had was in their cavalry. Their force of infantry was inferior to that of the Romans. But the Romans had for allies the Numidians, people who lived in the country which we now call Morocco. It is one of the most productive countries in the world. If it had a decent government, it would be the granary of Europe to-day. Now the Numidian horse and their force of elephants were more than a match for those of the Carthaginians. The battle began by a conflict in which the Numidians swept the Carthaginian cavalry out of the field. The Roman infantry then pressed on the Carthaginian infantry. They stood the attack at first, but when the Numidian cavalry returned and joined in the attack, the Carthaginian army gave way — and Hannibal's career of victory was ended.

He told the Carthaginian senate that all was lost, and they made such terms as Romans would grant to the conquered. Poor Hannibal could not long remain in Carthage. He was one of the chief magistrates there for a year or two. But one party there hated him worse than the Romans hated him. He, however, addressed the people of Carthage and taught them that it was necessary. He said in his first address to them, "having left you when nine years old I have returned after an absence of thirty-six years." He had never been in his own country since he was a child.

He knew that the Romans would wish to make him a prisoner. He sailed at once to Syria, where he entrusted himself to Antiochus the Third, one of the successors, after nearly a century, of Alexander the Great. He served Antiochus faithfully till the Romans so pressed him that he was forced to give up his guest and Hannibal retired to Bithynia. Here again the Romans followed him up. They could not be at ease while he lived, and Flaminius was sent to Prusias, King of Bithynia, to demand his surrender. Prusias was mean enough to send troops for his arrest. When Hannibal found his escape was cut off, he took poison and died.



THE MAKING OF PICTURES.

BY SARAH W. WHITMAN.

IV.

OIL-PAINTING.



PAINTING is distinguished from drawing by the use of the brush instead of the point. The brush is made necessary by the fact that paint consists of colored powder mixed with a liquid; and this must be laid by means of a brush on whatever surface is to receive it.

There are, in the main, but two liquids used in the mixing of paint; and these are oil and water; thus dividing painting into two great departments which are known popularly as oil-color and water-color work. I propose in this paper to tell you briefly what painting in oil-color consists in, and how it is practiced.

The value and meaning of work in oils lies in the fact that with oil-color, objects, as seen by the eye, or conceived by the imagination, can be represented with fuller and more complete expression than by any other means. There is in it more scope, more variety, and more permanence. In all methods of delineation we find of course serious and restraining limitations; yet in this the appearance of all the most essential elements in the visible world can be portrayed with freedom and with an inestimable verity; nothing is too strong, nothing too delicate, to be conveyed by this willing medium of oil-colors; and it justly holds foremost rank among the graphic arts.

You will find that oil-color, however, is seldom used in decorative work, such as is done on walls and ceilings; because oil-paint requires to be varnished, and that produces a shiny effect, which hinders its efficiency. Oil-color is in its most appropriate sphere when pictures painted in it are of the sort called "easel-pictures," where the painting is enclosed in a frame, usually gilded, and placed in such a light that it can be seen as a whole, and all its gradations of tone and color duly felt. But within these conditions may be found the almost endless variety which oil-paint possesses for the expression of what is seen in Nature. Broad masses and fine details are given by a master's use of the brush with equal ease, while that important element *texture* can be expressed perfectly

in oil alone—as for example the texture of the human body, a face or a hand, you will find given with matchless completeness by this means.

But what are the tools employed in this art? How shall the artist equip himself? He must have an easel; something, that is, to hold the canvas or panel on which he is to paint—or he may nail the canvas upon a wall—anything will serve so that it be placed perpendicularly to the eye. Then must come the palette; a thin piece of hard wood, cut oval or square, with a hole in it, through which one puts the left thumb, letting the palette rest upon the hand; and along the upper edge of this are set the paints. There is also a long slender stick, called a mahl-stick, and there are the brushes. Perhaps as I name these simple tools, it does not sound as if they could accomplish much, but I assure you they seem very powerful weapons in the hand of a master when he stands before the empty canvas, and proceeds to lay his picture upon it piece by piece. The very simplicity of his implements perhaps renders the process all the more vital because the workman comes so close to his work: even painting sometimes with his fingers, and giving many a clever touch with that sensitive and capable tool, the human thumb! Instead of the brushes, there is sometimes used, for quick vigorous sketching, the palette-knife; which being long and flexible has great excellence for laying fragments of color in the picture with accurate brilliancy. The surface upon which one paints has much to do with the effect obtained; and many surfaces have been used for work in oil. I think the oldest authenticated easel-picture in existence was painted by a Greek before Christ; and this is on slate; but stone, copper, wood, canvas, and other substances serve excellent purpose; though canvas is by far the most frequently used for a foundation, owing to its cheapness, to the ease with which it can be obtained, and to the fact that the paint becomes more readily united with it, and is less likely to crack and peel when exposed to changes of temperature. Dark wood, such as mahogany, is still a favorite ground to paint upon; the rich color of the wood furnishing a most agreeable and helpful undertone. But unless the wood is carefully seasoned and braced on the back, it will warp and hurt the picture sadly; so that practically in modern times wood is only used for very small pictures, and canvas for those of large dimensions. Canvas, which is a coarse or fine linen cloth, is tacked upon what are called "stretchers,"

or slight wooden frames, made with flat pegs, or "keys," in the corners by means of which the frame can be slightly enlarged. In this way if the canvas wrinkles from dampness or other cause, it can be tightened, and an even surface kept. So much for what one paints upon; and next comes what one paints with—the colors. Until within a very short time, about fifty years ago, these colors were bought by artists in crude condition, and ground and mixed by themselves according to their needs. Now they are prepared by careful manufacturers and come to us in little metal tubes, from which they are "squeezed," as occasion demands. Various earths and minerals, vegetable and animal substances, are used in obtaining colors, and their number and variety is very great. Yet many of the best painters both past and present, prefer a very simple list; and make them serve for expressing a manifold number of tones and shades. For example, with a palette set with white, blue, red, yellow, brown and black, one can do almost anything (excepting always the most delicate and subtle discriminations of color), thereby proving that there is more convenience than necessity in employing a large number of tints. Oil-paints are either transparent or opaque; and what is called "solid" painting is produced by using only the opaque colors; by means of which the picture assumes an especially substantial quality, with no "thin" places in it. This mode of painting is characteristic of the French school of painting of to-day, and has much that is good in it, though greater variety can be obtained by the use of some transparent color. A chief advantage which the solid method possesses is, that by its means greater freedom can be had in *modelling* the objects represented. For technical reasons which may be easily understood, figures, and objects generally, can be brought out more fully in relief by using thick solid color, with as little oil as possible. Indeed it almost seems sometimes as if many modern French artists used paint as if it were clay, in obtaining the bold relief which their work shows. On the other hand, the Munich School, which includes a very active and able body of students, paints with a "vehicle;" by which term is meant a preparation of oil and turpentine so adjusted that the picture is kept extremely wet; not, in fact, being allowed to dry till it is finished; all the paint being laid in this wet medium. The present English school is less distinct, technically, than either of these others; but it makes large use of extremely thin color—and employs more varied processes in getting effects. A very distinguished method of painting consists in laying the picture in first in solid color, with every light less light, and every dark less dark, than it is meant to be in the finished picture; then when this is dry, putting in the more brilliant lights with firmness and vigor, and rendering the shad-

ows into deep, transparent color. This was, in the main, Titian's method; and there is doubt if it has yet been surpassed.

Of course no wise person will say that there is only one way to paint pictures in oil; for the scope and flexibility of oils is so great as to allow the greatest possible range for individual treatment and expression. The temperament of an artist has a great deal to do with his method of work; while the variety of the material in which he deals helps him to the free expression of his own individuality. But in this as in all other work there must be broad general principles by which instruction is regulated, and the scholar of genius can only discover beautiful and special processes when he is duly in possession of at least one powerful method which has taught him how, with certain tools, to express certain truths of fact or feeling. It may be said in this connection that in all great painting one does not think at all of *how it is done*; on the contrary great painting gives one the impression—if I may use a commonplace term—of having done itself; with no stupid indications of the processes. Nothing is visible but the noble result which those processes were used to achieve. This is true not only of the general eye, but a masterpiece of painting often defies also the most critical examination of experts. There is in the Louvre at Paris, a beautiful portrait of a little Princess by Velasquez, regarding the method of which there are three established theories; each one being maintained stoutly by succeeding artists who try to make out how that charming result is obtained. It may have been done with a preparation of solid color, over which were laid transparent glazes—or first laid in with transparent tones, and solid paint added—or again, with consummate knowledge, it may have been done all at once, and not re-touched at all.

In trying to understand and criticize work in oil color, one must remember not only differing individualities in artists, but also the different conditions of ages and generations; the structure of modern life; and the effect produced thereby upon the modes of expression. For example, most of the pictures which were painted by the great Italians dealt in rich effects of color, in "tone," in picturesque adjustments of light and shade. When they introduced the landscape, it was mainly for decorative purposes; to furnish a spacious background in harmony with the main interest of the picture. To contrast with this we have to-day such a painting as that of Bastien Le Page's Joan of Arc; representing the appearance of the vision to the young girl. It is painted at high noon, out of doors. There are no shadows; and the whole expanse of the great canvas is done in those pale, chalky tints which one sees in the landscape when there is a glaring light over everything. Yet if this picture be seen at the distance which so large

a surface demands, it will be found that this mode of expression has its power also. There is in the dull grass and quiet orchard an enormous suggestion of the simple and prosaic circumstances, in the midst of which the revelation came; and these circumstances represent the arduous path of Duty where alone the heavenly visions shine.

I speak of these instances in order that you may notice, first, how independent great painting is of method; and secondly that for the efficiency of its expression it depends wholly upon method — two facts which both artist and critic in the department of art known as oil painting, will do well to lay to heart.

THE TEMPERANCE TEACHINGS OF SCIENCE.

IV.—THE EFFECTS OF ALCOHOL UPON THE STOMACH.

BY PROF. A. B. PALMER, M. D., LL.D.

OUR bodies are dependent for their growth, their support and activity upon substances taken into them. The air so necessary to our life is taken into the lungs; and some other materials are taken with it in the form of gases and vapors, but these latter are not for support or growth, and many of them are injurious. By far the greater part of substances, whether for necessary and useful purposes, or with injurious effects, are taken into the stomach.

These ingesta, as they are called, may be divided into Foods, Simple Drinks, Medicines, and Poisons; and besides these there are certain materials used as luxuries which are modifiers of action, and are regarded variously as foods, medicines, or as capable of producing injurious effects. Condiments, spices, coffee, tea and chocolate belong to this class.

There are also other substances taken into the stomach which are inert — incapable of solution and absorption — and which have no effect except such as is caused by their bulk or the shape of their particles. The hard fibres in fruits and vegetables, the husks of seeds and grains, and some mineral substances are examples. Doctor Martin of Johns Hopkins University, in his work on the *Human Body*, says:

Foods may be defined as substances which when taken into the alimentary canal are absorbed from it, and these serve either to supply material for the growth of the body, or for the replacement of matter which has been removed from it.

Food, in order to be such, must fulfil certain conditions. It must contain the elements which it is to replace in the body, and those necessary to build up the tissues. It must be capable of being absorbed from the stomach or intestines, and carried to the tissues; and, lastly, neither the substance itself, nor any of the products arising from its changes, or from combinations with other substances, must be injurious to the structure or activity of any organ.

If these injurious effects are produced "it is a poison and not a food."

Water is the simple diluent *Drink*. This liquid constitutes about two thirds of the whole weight of the body. It is contained in every tissue as well as in every fluid of the system; and its loss, which is constantly going on, must from time to time be supplied. Many drinks in use contain other ingredients, but all contain water. The other materials may be foods, as in milk; may be modifiers of actions, as in infusions of coffee and tea; or they may be medicines or poisons.

Medicines are substances which are taken for the purpose of modifying beneficially wrong actions or conditions of the system; or, in other words, for the alleviation of suffering and the removal of disease.

Poisons are substances which, either by themselves, or by the materials produced by their changes and combinations, inflict injury upon the system or some of its parts, and which are usually capable, independently of their bulk or mere physical qualities, of producing death. The same article may be a medicine, or a poison, according to the manner and object of its use. Thus arsenic, though a poison that inflicts injury when taken by a person in health, and in any considerable quantity causes death, may yet be given in such small doses as to counteract wrong actions and aid in removing diseases. In like manner morphine, when a few grains are taken, will destroy life; and always inflicts injury in whatever quantity when taken by the well, yet in a proper dose given to the sick, it relieves pain, procures sleep, prevents suffering and may overcome disease. Its habitual use, though in quantities which may not only be endured but may produce for the time agreeable sensations, is accompanied by consequences the most deplorable.

The statement of these facts will enable the readers who wish to know the truth, the better to understand the place alcoholic drinks occupy, after we have considered their particular effects on the

different organs and functions of the human body.

These drinks are taken into the stomach, and we are first to inquire as to their effects upon that organ. Although the most injurious action of alcohol, as it is commonly taken, is not upon the stomach, yet its effects on this workshop of the body are often of the most serious character; but as with all other substances, poisonous or otherwise, its particular action and results depend much upon the quantity taken, the degree of concentration or strength in which it is used, and upon the materials in the stomach at the time, and the particular condition of the organ; and these effects are further modified by its habitual or only occasional use.

When an ordinary dram of spirit and water, or of wine, is taken by one not accustomed to it, the first noticeable effect on the stomach is to produce a feeling of warmth in it. If the stomach be empty this effect is more decided than when taken at the time of a meal or soon after. When food is present the liquor mingles with it, is diluted and makes less impression on the coats of the stomach, and is more slowly absorbed. It causes in a short time relaxation and enlargement of the blood-vessels, and more blood is contained in them. There is present a state of irritation. There is in some cases a more free secretion from the glands, but it is more or less perverted. This irritation, however, may increase the appetite, and cause more food to be taken, but its digestion is likely to be impaired, and if much alcohol is taken the gastric juice is so changed by its direct action upon it that digestion is arrested. An unnatural condition of the nerves and vessels, and of the whole tissue of the membrane is induced. If the alcohol is often repeated the vessels become permanently dilated, the surface redder than natural; and according to the observations of Dr. Beaumont upon the stomach of St. Martin, which was open to inspection by a wound in the side, a degree of congestion and a blush of inflammation, and often small points of oozing blood after each indulgence in a common drink.

When the drinking is free, though it may not be carried to the extent of drunkenness, the stomach is apt to be more seriously and permanently changed. The coats become thickened, the organ is sometimes much contracted, the secretion of the gastric juice greatly perverted and diminished. Then very little food can be taken and digested, indigestion, distress and vomiting come on, and great depression and death follow. I recall cases in my experience where these results have followed the free use of spirits in men not regarded as drunkards, and who continued in successful business until the disease of the stomach arrested their course. Sometimes small and scattered ulcerations are produced and then bleeding, pain, and more frequent vomiting are likely to occur, and death is apt to soon follow. Even when these conditions exist, though pro-

duced by the alcohol, the taking of a dose of the same article will, by its narcotic effect upon the brain and nerves, give for a time, relief to the distressed feelings, and make the victim of the habit think that he cannot give up his drink, and that it is even doing him good.

When great excesses are indulged in, causing drunkenness, more immediate and violent effects upon the stomach are often produced. The organ becomes congested and inflamed so that days may be required for recovery from a drunken fit. When much alcohol is taken into the stomach as strong as clear spirits, or spirits but moderately diluted, the gastric juice which digests the food is coagulated or thickened and its power of digestion is destroyed. Those who take sufficient alcohol with a late dinner or supper to produce drunkenness, often vomit the food after some hours entirely undigested.

But these effects upon the stomach do not always follow from the use of alcohol; and in consequence of this many are encouraged to continue its use, and even advocate it as an innocent if not a useful thing. Some persons who commence taking it in moderate quantities largely diluted, as in wine and beer or in whiskey or brandy with much water, and especially if taken at meal-time, do not have their stomachs materially injured though they carry the indulgence so far as to seriously and even fatally injure them in other organs and in other ways. No poisonous article operates in the same manner upon every person; and some will endure an amount of arsenic, or opium, or other poisons, when slowly introduced, without very marked effects, an amount which would soon prove much more injurious or even fatal to others, especially if taken without the gradual training. This is the case with alcohol. Some stomachs will endure a considerable quantity for a long time without very serious effects upon them while others will suffer many or all of the bad results before described. When the injurious effects of alcohol upon the stomach are urged as a reason for not taking it, some old drunkard or free drinker is often referred to as having a good stomach notwithstanding his habits. Such cases though not unfrequent are still exceptional. The many whose stomachs are injured by the drink, and who have been forced to abandon it, or who are suffering or have died from it, are lost sight of, and the few who have endured it and survived, are regarded as examples of all.

As well might one say that a battle or the storming of a battery was not dangerous or destructive, since many old soldiers have gone through the ordeal with but slight injuries.

The dangers of alcohol to the stomach are great, especially when taken in form of ardent spirits and between meals, and are often disastrous though some escape this form of injury. The greater injury falls upon other organs and functions.

SEARCH-QUESTIONS IN AMERICAN LITERATURE.

BY OSCAR FAY ADAMS.

IV.

LITERARY PSEUDONYMS.

61. What author made himself famous as "Ik Marvel"?
62. What popular author is known as "Pansy"?
63. Who is well known to young readers as "Sophie May"?
64. What writer was best known as "Cousin Alice"?
65. Who is "George Fleming"?
66. What favorite story-writer is known as "Margaret Sidney"?
67. What writer often speaks of himself as "Col. Ingham"?
68. Name the writers who have used the following alliterative pseudonyms: "Fanny Forrester," "Frank Forrester," "Francis Forrester," "Fanny Fern," "Jennie June," "Peter Parley," and "Timothy Titcomb."
69. What author made the *nom de plume* Elizabeth Wetherell a famous one?
70. Who is "Florence Percy"?
71. Who is "Martha Farquherson"?
72. Who is "Marion Harland"?
73. What author uses the signature "Gail Hamilton"?
74. Who is "Howard Glyndon"?
75. What writer is best known as "Porte Crayon"?
76. Who is "Petroleum V. Nasby"?
77. What journalist was known as "Warrington"?
78. Who is "Mrs. Partington"?
79. What writer was chiefly known as "Stella"?
80. Who is known as "Grace Greenwood"?

ANSWERS TO SEARCH-QUESTIONS IN NOVEMBER READINGS.

21. Paul Fleming is the hero of Longfellow's *Hyperion*; Miles Coverdale figures in Hawthorne's *Blithedale Romance* and Hepzibah Pyncheon in Hawthorne's *House of Seven Gables*.
22. The Little People of the Snow, in Bryant's poem of that name.

23. Priscilla Mullins, in Longfellow's *Courtship of Miles Standish*.

24. See Whittier's *Snow-Bound*. Lines 510-589 referring to Miss Harriet Livermore, a real person. For Petruchio's Kate see Shakespeare's *Taming of the Shrew*. Siena's saint is Catherine of Siena celebrated in church legends for her wonderful visions.

25. *The Spy*, by James Fenimore Cooper. 1789-1851.

26. In Holmes's *Grandmother's Story of Bunker Hill Battle*. The belfry may quite possibly have been that of the church built in 1721, at the corner of Hanover and Richmond streets, Boston.

27. See *The Vision of Sir Launfal*, by James Russell Lowell.

28. See *The Minister's Wooing*, by Mrs. Stowe.

29. Mrs. Potiphar is a character in *The Potiphar Papers*, by Geo. Wm. Curtis; "Pomona" figures prominently in *Rudder Grange*, by Frank Stockton; Sam Lawson will be remembered by readers of Mrs. Stowe's *Old Town Folks*, while "Gifted Hopkins" is the would-be poet in Holmes's *Guardian Angel*.

30. See *Hannah Binding Shoes*, by Lucy Larcom.

31. See *Skipper Ben*, by Lucy Larcom.

32. Elizabeth Haddon, in Longfellow's *Elizabeth*.

33. See Aldrich's *Marjorie Daw*.

34. Joseph Rodman Drake, the poet, in Halleck's *Lines on the Death of Drake*.

35. The reference is to Rabbi Jehosha, in Lowell's poem *What Rabbi Jehosha Said*.

36. Darius Green, in J. T. Trowbridge's poem *Darius Green and his Flying Machine*.

37. Luclarion Grapp is a character in Mrs. Whitney's *Real Folks*. Donatello is one of the four principal figures in Hawthorne's *Marble Faun*; "Gem" is a juvenile personage in Miss Howard's novelette *One Summer*, and Dakie Thayne is one of the people in Mrs. Whitney's *Summer in Leslie Goldthwaite's Life*.

38. See Aldrich's poem *Babie Bell*.

39. See *In Arabia*, by James Berry Bensen.

40. Miss Mix, in Bret Harte's *Condensed Novels*.

C. Y. F. R. U.

REV. J. H. VINCENT, D. D., AND REV. J. L. HURLBUT, D. D., SUPERINTENDENTS.
MISS K. F. KIMBALL, PLAINFIELD, N. J., SECRETARY.

[This department, while not less interesting to the general reader, is especially set apart for the CHAUTAUQUA YOUNG FOLKS' READING UNION, the young people's branch of the Chautauqua movement for popular home education. It supplies a course of reading for young people which is intended to give them the most valuable knowledge in the most interesting manner. The Required Readings are issued simultaneously in WIDE AWAKE and the CHAUTAUQUA YOUNG FOLKS' JOURNAL; a few added books form the Supplementary Readings. The Union is under the direction of REV. J. H. VINCENT, D. D., and REV. J. L. HURLBUT, D. D., as Superintendents, in connection with the Editors of the magazines mentioned above. Any person, young or old, may become a member of the Union by sending his name and *ten cents* in postage stamps to the Secretary, MISS KATE F. KIMBALL, Plainfield, N. J., to whom inquiries for further information may be addressed.]

PARTIAL lists, and lists not wholly correct, of answers to the Search-Questions in the November Readings have been received from the following:

H. W. Bray, Charles G. Norton, Charlotte D. Isles, Daniel Sumner Farrington, Lottie W. Chase, Norwich, Conn., C. Y. F. R. U. (Louise C. Mershon, Sec.), Harry Dow, Effie M. Thorndike, Hurlbut C. Y. F. R. U. Framingham, Mass. (F. B. Daniels, Sec.), "U and I Club" of C. Y. F. R. U., Providence, R. I. (Bessie W. Olney, Sec.), Chautauqua Gleaners, Lynn, Mass. (D. A. Sanborn, Sec.), Lawrence (Mass.) Branch of C. Y. F. R. U. (Whitman Churchill, Sec.), Frances Sterrett, M. A. Lanman, S. E. Whitaker, C. Y. F. R. U., Berlin, Mass. (Clara L. Shattuck, Sec.), Mary T. Duren, C. Y. F. R. U. Circle of Lawrence, Kansas (Kate L. Riggs, Sec.), B. and S. Fleming.

The failures in nearly every case were in the answers to questions 31, 33 and 39.

SEARCH-QUESTIONS IN AMERICAN LITERATURE. THE PRIZE BOOKS. — The popular Search-Questions in American Literature, prepared by Mr. Oscar Fay Adams, begun with the Readings for October, 1884. They comprise twelve sets of Questions, and will end with the Readings for September, 1885. Each Local Circle, or member of the Union, that answers correctly all the questions in one or more of the Twelve Sets, shall be held entitled for each complete set of answers, to one volume from the following list of D. Lothrop & Co.'s Popular Biographies: *Abraham Lincoln, Bayard Taylor, Charles Dickens, Henry W. Longfellow, Oliver Wendell Holmes, Horace Greeley, David Livingstone, George Peabody, John G. Whittier, Charles Sumner, George Washington, James A. Garfield*. These are standard books, \$1.50 each, and will prove valuable additions to any one's book-shelf. The prize books will be sent post-paid to the addresses of the winners.

It would be a good plan to hold one C. Y. F. R. U. meeting this month with its subject Mrs. Frémont's article on Washington City. Members should be appointed either to present original papers (or read printed articles, if they can find them) upon themes illustrating the article. Some of the topics might be the following: 1. The Capitol at Washington. 2. The White House. 3. Who was Prince De Joinville? 4. Louis Philippe, the king of the French. 5. Daniel Webster. 6. The Hotel des Invalides, the burial-place of

Napoleon. 7. President John Tyler and his Administration. A series of papers like these, or of questions on these subjects, would lead to individual research among the members, and increase their knowledge on many points of history.

MISS KINGSLEY's article on Westminster Abbey might furnish a good series of subjects for another meeting, with the following programme: 1. A description of Westminster Abbey. 2. Henry the Seventh's chapel in Westminster Abbey. 3. The Right of Sanctuary. 4. The Houses of York and Lancaster. 5. Warwick, the King-maker. 6. The Princes in the Tower. 7. Richard the Third. 8. William Caxton. It would be a good plan to have a reading or two from Shakespeare, as for instance from King Henry I., Act II., Scene IV.; the scene in the Temple Garden when the red and white roses are plucked by the Yorkists and Lancastrians; or from Richard III., Act V., Scene III., before the battle of Bosworth Field.

STEPHENSON writes: "In Mrs. Frémont's sketch of the 'Bodisco Wedding' in the October number of your magazine, she mentions white camelias 'the most elegant of bouquets then, before the poor flowers were lowered by a French pen to one meaning only.' By whom was this done? and what was the 'one meaning.'"

MRS. FREMONT replies: "The son of Alexandre Dumas wrote a novel called *The Dame au Camelias*, on which the Opera of the Traviata is made. He makes his chief character wear only one and the same flower always; from this came the name of the Lady of the Camelias. No flower can be more white—firmly, purely white; his heroine did not match the flower. The book and play had a prodigious success in France—Paris rather which makes France—but Queen Victoria would not let the opera be played before her. In France where white lilies mean the Bourbon Royalists, and violets the Bonapartists, the camelia soon became adopted by the people—women, who had no aim but to amuse themselves, no duties, only pleasures according to their ideas of pleasure. Therefore no lady wears a camelia now.

One in the hair, and one or more in the corsage, used to be the most desired evening flower; for, unless you touched the thick white petals, when they at once drooped and became yellowed, they were all firm and fresh throughout the evening.

THE WIDE AWAKE POST-OFFICE.

MY DEAR WIDE AWAKE:

This is the first time I have written you a letter, although I have been thinking about it for some time. My cousin Jocelyn takes WIDE AWAKE, and I take *St. Nicholas*, and we always exchange as we are both very fond of reading, and being read to, and are fortunate enough to have mamas who are never too tired to read a short story first before bed-time. I suppose plenty of English children read your nice magazine as well as Americans. I am half English and I like the piece very much that Mrs. Raymond Blathwayte wrote about the Royal Family. My mama says the authoress' name is a very uncommon one, and she thinks she used to know her years ago, when she (my mama) was a little girl at Woking, England. If it is the same lady, she had two little boys and a dear little girl they called "Missey," who used to ride around on a sleek, well-kept donkey, like the Central Park donkeys, but much nicer. Mama says it seems strange after all these years to see her name again, and hopes that if it is the same one that she will read this letter. Mama used to live in the Isle of Wight where the Queen has another palace called Osborne, at which place she was in the habit of spending a month or two every summer, and mama had many opportunities of seeing her and other members of the Royal Family; Princess Beatrice, who was a little girl then, was generally her mother's companion.

When I am old enough I want to join the C. Y. F. R. U., but I am only a small boy yet in the Second Reader and cannot write a long letter free enough of blots to send, so mama has to do it instead:

EUGENE WILSON.

Eugene's mamma is requested to send her Post-office address to the Editors of WIDE AWAKE.

MIDDLEBORO, Mass.

DEAR WIDE AWAKE:

I should like to correspond with L. H. who writes to you from Hudson, Mass. I saw in the October Post-office in WIDE AWAKE she would like to correspond with some one who is collecting postage stamps. I am getting stamps and would like her address.

EDIE B. BRAYTON.

NEW YORK.

DEAR WIDE AWAKE:

I have taken you four years, and each time you come I like you better; I enjoy the letters especially. If A. M. A. means instrumental music, I think two pretty pieces are the "Flower Song," and "Three Bells Polka." I, also, am very fond of music, I cannot sing much, but I play some, the above mentioned pieces being my favorites. I should think Archie Williams would be very happy with all his pets, of

which I think the pony, and the dog are the best. I can imagine what nice times "Mable and Leo" had, for I enjoy the country so much myself. My brother Alfred and I went to Madison, Conn., this summer, and we had a delightful time. I suppose you know it is right on the Sound, and we have such nice times bathing; right by the bathing-houses is a large rock that extends quite a distance into the water and is a splendid place for diving, which I enjoy very much if I am a girl. I can also swim, float, row, and shoot a little. I should like to join the "Little Housekeepers," for I am very fond of cooking. I send you a receipt for cake, which is very nice.

Of the stories I like "Their Club and Ours," and "Masks Off," best. I am fifteen this month.

WINIFRED B. COMER.

POOR MAN'S CAKE.

One cup sugar, two flour, one milk, one heaping table-spoonful butter, one small teaspoon soda and two of cream tartar, one egg, one-half teaspoon mixed cinnamon and cloves. Half a cup of seeded raisins improves it.

CONCORD, N. H.

DEAR WIDE AWAKE:

This is the fourth year I have taken you. I am thirteen years old. I have two cats, a little kitten and a colt. The colt, whose name is Ned, and one of the cats used to be very great friends, and in the winter the cat used to sleep on Ned's back. One day when Ned was drinking, the cat jumped up and began to rub around Ned's head. I suppose Ned thought the cat was too familiar, for he took hold of the cat's tail, and lifted him out of the stall. It frightened the cat so much that he has never been near Ned since. I think "Rocky Fork," "Their Club and Ours," "Lost Among Savages," "The Silver City," "Old Caravan Days," "A Brave Girl," and "A Double Masquerade," are splendid. I take drawing lessons, and like it very much. I should like to correspond with some of the WIDE AWAKE girls.

FLORA P. BROWN.

BROWNSVILLE, Tenn.

DEAR WIDE AWAKE:

I have been one of your constant subscribers for about four years, and always read your pages with great interest. I am twelve years old, and have no brothers and sisters, and so when I'm not at school my companions are my books and the grown people in the family. I had almost forgotten my music which I love better than almost anything in the world. Perhaps I may some day be in Boston attending the Conservatory, if mamma and papa can let their only little girl go so far away.

GERTRUDE GLASS.

KNOXBORO, N. Y.

DEAR WIDE AWAKE:

Mamma says one day, "Porter, why don't you write a letter to the WIDE AWAKE and tell them about that curious tree down in the ravine?" My big brother says, "Do you suppose he could get to that tree in one letter?" Now I don't know what he meant by that, but I do know I will tell you all about it in this letter, if I am slow. Well, to begin with, I am twelve years old, and I used to think it would be very nice to be twelve years old; but now I know better, for I am too big and too little — too big for mamma to make me little pies and cakes, and big enough to tie hops and hoe, and too little to go out evenings or to go with my big brother hunting. Well, about that tree; in the first place we go out the back door and around the hop-kiln, and then there we are, on the side-hill, and that's where we have such fun in the spring. You see the sun shines right on it, so the snow melts off the first thing in the spring, then we make things out of clay. By we, I mean Charlie and Adee. Charlie, he is nine years old, and he is the cutest little chap you ever saw; he's great on bones — he goes poking around for all the old bones he can find. I mean skulls, teeth and such. When he was only four years old he came to mamma and said, "Here is a hen's head-bones," and mamma did not believe it, and he said, "Why, yes, here are the eye-holes and the nose-holes and the tongue bone." And mamma looked at it and said it was so. Then one day about that time he visited the Union School, and the teacher asked if any boy could tell how many front teeth a squirrel had, and any of the boys did not know; but Charlie held up his hand, and told all right, the teacher said; and he's awful good-natured, I guess because he sucks his thumb and that consoles him for all his troubles. Adee comes next, and she is seven, and she's nice, of course, because she is all the little sister I've got. Well, we have a regular clay bank on the side-hill, and we make little jars and pans and jugs and men's heads, and all sorts of things; and we have a clay oven where we make a fire and cook frogs' legs, and bake eggs, but we don't get much of the eggs except the pieces we find lying around as they almost always burst. I could tell you lots more what we do on the side-hill, but I am afraid my letter will be too long. Well, the next thing we come to is the spring, though it ain't much of a spring now, as it needs digging out. Every spring papa says, "Now this year, I must clean out that spring," and mamma says, "I have heard that remark before;" because you see papa says that every spring, and never gets time to do it. But I don't care, for it's a jolly place to catch bull frogs in. Well, after we pass the spring, we come to the butternut-trees, and I just wish you could see that bank in the spring when the blood-root is in blossom; it is just white with them for yards and yards, but I think they are the prettiest when they are in bud. Well, now we are almost to that tree; just come around a little corner bank where the maiden-hair grows and here it is. The tree grows out of a slatey bank, and there are four kinds of trees from one root: maple, elm, birch, and ironwood. Don't you think that is queer? We show it to every one and they do not see how it is for the roots are so twisted. This makes the second year that we

have taken the WIDE AWAKE. Charlie and I saved our money last year, so we could take it this year. I like all of the continued stories, and especially the history pieces. I hope my letter is not too long to print. We live on a hop-farm. I will write you a letter about hop-picking sometime if you would like.

PORTER HUNT.

The Postmistress believes that all the WIDE AWAKE readers would enjoy a letter about life in the hop-yards.

LIVONIA, N. Y.

DEAR WIDE AWAKE:

I do not take you, but a friend of mine and I exchange papers. She takes WIDE AWAKE and I take the *Youth's Companion*, so we each get the reading of both. The serial story, "A Double Masquerade," was splendid. I could hardly wait when I read one number, to get the next, it was so interesting. We are going to have an exhibition in our school. It will consist of a drama and a farce, besides singing and tableaux. We expect to charge ten cents admission and the proceeds are to go for an organ for the school. I would like to ask a question. Do the stories that are printed as serials in WIDE AWAKE, go by the names we first know them by, or the second, for instance: would it be "Their Club and Ours," or "The Trojan War" that the book would be named? Anyway whatever name it goes by, I do think that was the best continued story I ever had the pleasure of reading, unless I except the story of "Honor Bright." They are both so natural and yet so very interesting. I agree with Lillie H. Trow that Dickens' works are very nice. Some people I know don't like them at all. I had a teacher once who did not. We take quite a good many papers for young folks, the *Youth's Companion* as I said before, and *Good Cheer*, *American Young Folks* and *The Pansy*. But I like the WIDE AWAKE better than any of them.

CARRIE E. COY.

The story in its book form is entitled, "Their Club and Ours."

PROVIDENCE, R. I.

DEAR WIDE AWAKE:

I write to ask about what I heard read in WIDE AWAKE about some pet lions owned by Mrs. Lincoln, of Boston. It was read from a WIDE AWAKE of 1878. They were two years old then, and they must be full grown lions now. One afternoon, where I go to school, the teacher thought it would be very pleasant for us to read about cats, lions, wild-cats, and all about the cat family. Among the stories that were read, these two tame lions were read about. I took a great interest in learning about them. I go to Vineyard Street Grammar School.

A LITTLE SCHOOL-GIRL.

Will some of the Boston boys and girls tell "A Little School-Girl" what became of the tame lions referred to?

The readers of "Wagon-Tire Camp" in this number will enjoy seeing what the author says of her story:

It is a true one, in all its main points, of the very first discovery of gold in the West. It has been handed down until it has become a tradition. . . . My brother, who is a civil engineer, and has been lately in the Snake River region, came upon one of the veritable soldiers who re-discovered Wagon-Tire Camp.

PORTSMOUTH, Va.

DEAR WIDE AWAKE:

I am collecting birds' eggs, foreign stamps, and advertising cards, and I would like to correspond with some of the subscribers to WIDE AWAKE and trade eggs, stamps, and cards. Among the stories I was very much interested in, were "The Silver City," "On Indiana Roads," "In No-Man's Land," "Their Club and Ours," "More Than They Bargained For."

Can any one answer my three questions? I. What is the best method for getting ink-stains off birds' eggs? II. What is best to keep birds' eggs in? III. What is the paste to stick stamps in with? I have five hundred and sixty-five stuck in, mostly with mucilage.

GRAY HOLLADAY.

AURARIA, Ga.

DEAR WIDE AWAKE:

I think "Masks Off" is splendid. I have a nice little kitten, and its name is Daisy. I have a garden and I have sold quite a number of cucumbers. I have a pin store and I sell pictures and things for pins. I have written to you twice. I am making some real pretty trimming. I think you are awful nice.

FANNY DAVIS.

PROVIDENCE, R. I.

DEAR WIDE AWAKE:

I do not know whether to write you or not as I do not take you; but I think it can do no harm to tell you how much I like you. I take the *Youth's Companion*, and my friend, Mamie Vaughan, takes you; so you see I have the means of reading you. Mamie and I are making a collection of curiosities and we find it very interesting. We have quite a number of curious things. Will some one be so kind as to tell me if there were any cents coined in 1815? In looking up the dates, I find no mention made of that year. Another question too I would like to ask — how many camphor refineries are there in the United States? I think there are but two in New England.

My friend Mamie and myself are thirteen years of age. We like you *very much indeed*. Mamie says, "There isn't *any other* magazine half so good as WIDE AWAKE. I wouldn't take *any other* in *exchange*." She seems to consider it the best magazine the world contains, and I quite agree with her. Hoping to hear soon about my camphor and coins,

MAUD BURTON.

BALDWIN, Wis.

DEAR WIDE AWAKE:

I have read with much interest the letters from your different correspondents; and learning lately of a pretty way to make a rug, I thought perhaps some of the readers of WIDE AWAKE might like to make one also, so I will give the directions as plainly as I can. The foundation is common bed ticking. We take any pieces of worsted or yarn, and tie them together. It is prettier to have short pieces some eight or ten inches in length, and as great a variety as possible. Take two knitting needles and cast on ten stitches and knit back and forth plain. When you have a long piece knitted, wet it and press with a warm flatiron, then sew the two edges on to the blue stripe in the ticking. Then cut through the middle of the knit stripe and ravel. It is a good way to use up old knit stockings and pieces of worsted, and make a very pretty rug. If any one tries it and has trouble, if they will write to me I will explain further. I should like to correspond with some one about my age (fifteen) who is interested in fancy work.

MARY ALLYN.

PALESTINE, Tex.

DEAR WIDE AWAKE:

I have been reading your stories for a long time. I like "In No-Man's Land." I should like it if some of the girls who are readers of WIDE AWAKE would send me some pretty silk scraps, and I will send them back something they would like to have in return. I should like to correspond with Bessie Torrey, if she is willing.

NATALIE A. TAYLOR.

WALDENSIAN VALLEYS, PIEDMONT, Italy.

DEAR WIDE AWAKE:

I am a little American girl, but I have lived in Rome ever since I was eight months old, and love it better than any place in the world. One summer we always spend in Tuscany, and the next here in Piedmont. From my chamber window I can see the beautiful Valley covered with vineyards and the mountain tops still white with the snow of last week, for we are in the Alps. Soon the grapes will be ripe, and my brother and I will join in the vintage and help the peasants to heap the great baskets full of purple and white grapes, ready for wine-making. My sister left for Leipsic yesterday to study German; but my brother and I will have lessons at home next winter. I am afraid my letter will be too long to be printed, but before I close I want to tell you how much I like you and look forward to your coming over the Atlantic.

Your little eleven-year-old friend,

SUSIE BRAXTON TAYLOR.

The Postmistress speaking for the thousands of children who read WIDE AWAKE, invites Susie to write a letter about the merry life in the vineyards when the grapes are ripe, and about all her adventures and foreign pleasures and the boys and girls she sees in Rome.

To members of the Chautauqua Young Folks' Reading Union:

The Publishers of the C. Y. F. R. U. READING COURSE desire to show their pleasure in the high aims and praiseworthy perseverance of the members of the Union, most of whom have taken the three annual courses of Readings already published. Therefore they have decided to offer in connection with the next course,

Four Series of Prizes to the C. Y. F. R. U.

Each of the four series will consist of four money awards. (*sixteen prizes in all*):

\$10.00, \$5.00, \$3.00, \$2.00.

FIRST SERIES. In *Ways to Do Things*, in the Oct. '84 numbers of **WIDE AWAKE** and the **CHAUTAUQUA YOUNG FOLKS' JOURNAL**, Sarah Orne Jewett writes concerning "Town Clerks," proposing that every young person become a Town Clerk by making and preserving a record of all important and interesting events which take place in the town. The Publishers believe her suggestions will produce good habits of written expression, of observation also, and induce young people to take an intelligent and thoughtful interest in social and public affairs; and accordingly they offer Four Prizes of \$10.00, \$5.00, \$3.00, and \$2.00, respectively, to the writers of the four best Records or Neighborhood Diaries which shall be sent them by January 1, 1885. These records may be more or less historical or of current events only. The competitors must be Members of the C. Y. F. R. U., and not over eighteen years of age. Clearness, vivacity and conciseness of narrative, and good penmanship, will be taken into consideration. The prizes will be awarded and sent February 1, 1885. The names of the Winners will be announced in the March numbers of **WIDE AWAKE** and the **JOURNAL**.

SECOND SERIES. In the Nov. '84 numbers of **WIDE AWAKE** and the **CHAUTAUQUA YOUNG FOLKS' JOURNAL** there will be published, in *Ways to Do Things*, an article entitled "A Boy's Menagerie," which gives full directions for the manufacture of tent, cages and animals. To the four Members of the C. Y. F. R. U. who send the four best Collections of Animals which they themselves have drawn, colored and mounted, together with a set of Showman's Speeches concerning these animals, the Publishers will award Four Prizes, of \$10.00, \$5.00, \$3.00, and \$2.00, respectively. They will take into consideration good drawing, truth of coloring to nature, and the knowledge of natural history shown in the "speeches," also the wit and humor, also correct composition and good penmanship. Both boys and girls may compete, and competitors shall not be over fifteen years of age. This competition will remain open until February 1, 1885, and prizes will be awarded and sent March 1, 1885. The names of the Winners will appear in the April numbers of **WIDE AWAKE** and the **JOURNAL**.

THIRD SERIES. In the October 1884 numbers of **WIDE AWAKE** and the **CHAUTAUQUA YOUNG FOLKS' JOURNAL**, Rev. Dr. Edward Everett Hale begins a series of articles, *Boys' Heroes*. All boys, all girls, have their heroes, beings whom

they delight to dream about, beings who have achieved resplendent greatness or goodness, whose names they thrill with generous pride and admiration to hear. Dr. Hale, in making his list of twelve heroes, consulted with several boys and girls; but he could not hear, one by one, from the multitude. The Publishers here offer to the writers of the four best Essays, entitled "My Favorite Hero," Four Prizes, \$10.00, \$5.00, \$3.00, and \$2.00, respectively. The writers must be Members of the C. Y. F. R. U., and under eighteen years of age. Excellence of style and soundness of thought will be considered, also penmanship. This Competition will close March 1, and awards will be made and sent April 1, 1885. The names of Winners will be published in the May numbers of **WIDE AWAKE** and the **JOURNAL**.

FOURTH SERIES. There is a growing interest felt in handiwork,* by both boys and girls. The use of tools, in the construction of articles decorative and useful, is becoming a valued accomplishment. To encourage this taste, the Publishers offer Four Prizes of \$10.00, \$5.00, \$3.00, and \$2.00, respectively, for the four best Original Designs for any useful or decorative articles which can be made, presumably, by persons under sixteen years of age. These designs shall consist of the needful diagrams, accurate in shape and size reductions, definite descriptions of materials, and plain working directions. Housekeeping and furnishing conveniences, whether manufactured with "tools" or with needle, and appliances for out-of-door life and sports, will be considered in preference to articles purely decorative. Should any of the essays in this series be esteemed desirable for use in **WIDE AWAKE** or the **JOURNAL** they are to be the property of the Publishers for that purpose. This competition is open to all members of the C. Y. F. R. U. under twenty-one years of age, and to them only. It closes April 1, and prizes will be awarded and sent May 1. The names of the Winners will be given in the June numbers of **WIDE AWAKE** and the **JOURNAL**.

Offer Extraordinary!

A special Book Prize possible to ALL COMPETITORS!

In addition to the announcements of Prize Winners in the March, April, May and June numbers of **WIDE AWAKE** and the **JOURNAL**, there will be published in these numbers the names of all competitors whose efforts deserve *Honorable Mention*, and to all who win this distinction will be mailed, at the times of sending the money awards, a volume of the popular Young Folks' Library: to the boys, *Tip Lewis*, by Pansy; to the girls, *Margie's Mission*, by Marie Oliver.

Competitors must be subscribers to **WIDE AWAKE** or the **JOURNAL**.

All letters and packages must be fully prepaid, and addressed to D. Lothrop & Co., 32 Franklin St., Boston, Mass., U. S. A., and must be accompanied by the address of sender *within the parcels*. All matter accompanied by stamps and request for return will be returned to the authors at the proper time.

* See "A Boy's Workshop," C. Y. F. R. U. Course for 1883.

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Sunday-school teachers and superintendents will find these admirably adapted to the purpose of teaching great moral lessons, while they are also full of pleasure and interest to young readers.

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By Rev. C. E. SMITH. The remarkable interest awakened by this book is indicated by the following extracts from the comments of those who have read it.

COMMENTS.

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LIFE IN SIAM.

In 1841, a young man named Jno. H. Chandler felt it to be his duty to go to Burmah and join in the work of Baptist missions in that country. The name of Chandler is an honored one in the literature and labor of the Baptist Church; and on this gentleman and his accomplished wife has fallen a just share of the honor which follows devoted toil. Mr. Chandler at first went only as a lay missionary, but subsequently entered the ministry as a regularly ordained clergyman. He was soon transferred to Siam, and made his home at Bangkok, the capital of the kingdom. Here his ready facility for acquiring the language made him both useful and busy. He wrote several religious and scientific works in Siamese, and rendered himself valuable to the King and his Court as translator of important documents.

One of the most inevitable results of mission-work is the breaking down of the health of those engaged in it. And this is especially the case in such a debilitating climate as that of Siam. This breaking down generally comes after a short term of service. The Rev. Mr. Chandler and his wife were no exceptions in this respect to the ordinary lot of missionaries. Their labors had been arduous and various. Mr. Chandler had served with the Foreign Missionary Society till 1856. Then he was occupied with various evangelical and literary duties until, in 1859, he became the United States Consul at Bangkok. He was also tutor to the present King of Siam.

The undermining of Mr. Chandler's health went on gradually for years, until in 1872 he entirely broke down. In Bangkok he received medical treatment and also on his way to this country and back again in 1876. But the effect of all this was rather to patch up than to cure. It was not until 1880 that he and his wife began to experience substantial relief. But we will let them tell their own story which will be found exceedingly interesting. Recently, a correspondent of one of our daily papers visited them at their home in Camden, N. J., at which place they have been residing since their return from Siam. He found them hearty and cheerful people, considerably past middle life, and giving no indication, either in appearance or manner, of ever having been miserable invalids.

The Rev. Mr. Chandler, conversing freely about his experience, said substantially:

"After coming to this country in 1876, I returned to Siam with somewhat improved health, intending to stay six years. Such was my condition, however, and that of my wife, that we were compelled to return in three. *I was a complete wreck. My lung weakness was so great that for months at a time I could not write or read. The nerves of my stomach were totally demoralized. My food could not digest. I had to lay aside all my teaching and missionary labor.* I required an attendant all the time, and was unable to do either mental or physical work. My sleep was broken and unsatisfactory. I was also troubled with palpitation of the heart, with diabetes, and with an obstinate catarrh of ten years' standing. *Altogether, I was a very, very sick man.*

"While thus a sufferer, the Rev. Dr. MacFarland, a Presbyterian missionary at Bangkok, called my attention to 'Compound Oxygen.' He had tried it for indigestion and general debility and had found it very beneficial.

"While I was on my way home I found myself in a very critical condition, and almost gave up the hope of recovering health. On reaching Philadelphia I consulted Drs. Starkey & Palen, and at once began the use of Compound Oxygen. It acted like a charm. Very soon I felt signs of returning strength. In the matter of diabetes the relief was particularly noticeable. Improvement went on gradually, but surely, I became so that I could eat with regularity and really enjoy my food. In time my old symptoms of wretchedness and weariness passed away and I was myself again.

"You may judge from my strength and health when I tell you that I was with the Siamese Embassy in New York and Washington a few months ago, travelling with them and going about as freely and energetically as any of them. Compound Oxygen had so recruited my system that the unusual exercise of travel had no unpleasant effect on me; nor was I in any respect the worse for my journey. I think I am now able to endure almost as severe labor as at any period of my life."

Mrs. Chandler, who has the appearance of a well-preserved lady, then cheerfully gave her experience. She said in substance:

"So arduous were my labors that my health, which had for some time been failing, broke down in 1873. I had been of buoyant spirit, but my nerves were exhausted and I sank down. Vitality gave out. Endurance failed. I gave up all my work. I was so low that on arriving in this country in 1876 no physician would give me any encouragement.

"When I returned to Siam it was with only partially restored health. I broke down again, and for months was absolutely helpless. I was nervous to a frightful extent, and, in spite of the most earnest endeavors, could not obtain satisfactory sleep. We could not see our way clear to leave Bangkok until 1880. When I began to pack, I was afraid I could not go through such a heavy undertaking.

"On arriving here I at once sought Starkey & Palen, procured a Home Treatment, and faithfully followed the directions. Has it done me good? Look at me now. I am restored to my old good health. There could have been no severer test than in my case."

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THE CHILDREN OF WESTMINSTER ABBEY.

BY ROSE G. KINGSLEY.

V.

KING EDWARD THE SIXTH.

BETWEEN the death of Edward the Fifth and the coronation of another boy-king, Edward the Sixth, Westminster Abbey saw momentous changes. Its fabric and its constitution were alike altered by the stupendous transformation through which England passed in those seventy years.

Henry the Seventh's reign marks a great break in English History. It is the close of the Middle Ages. And the Abbey tells the story of this break in a strangely vivid and emphatic fashion. As you walk up the wide flight of steps beyond the Confessor's Chapel at the extreme east end of the Abbey, you find yourself in a new world. The grave, stately, mediæval church is left behind. And, entering Henry the Seventh's matchless chapel, a sense of fervor and richness in the architecture seizes on you. Your eye feasts on the bayed windows with their innumerable little diamond panes, the traceries and mouldings on the walls — not a foot left unwrought — the niches with figures of saint and martyr, the grand bronze gates with their Tudor arms, the rose and portcullis, the falcon and fetterlock, the rich dark wood carving of the stalls, with the banners of the Knights of the Bath hanging motionless above each, and then the roof, that marvelous stone cobweb, with its bosses, carvings and coats of arms, its vaultings springing from the slenderest pillars imaginable, like graceful palm stems, and spreading out into the exquisite fan-tracery that covers the whole — a network of stone lace. Those prodigious pendants of stone, richly carved over their whole surface, which hang poised aloft in airy splendor, may well fill the minds with wonder almost akin to terror. How do they hold together? How has the cunning of man been able to counteract the force of gravity? What keeps them from falling on us as we stand gazing up at the stone miracle, and grinding us to powder? Not only we, but many wise architects have marvelled at that "prodigy of art," — at the "daring hardihood" which keyed that roof together, every

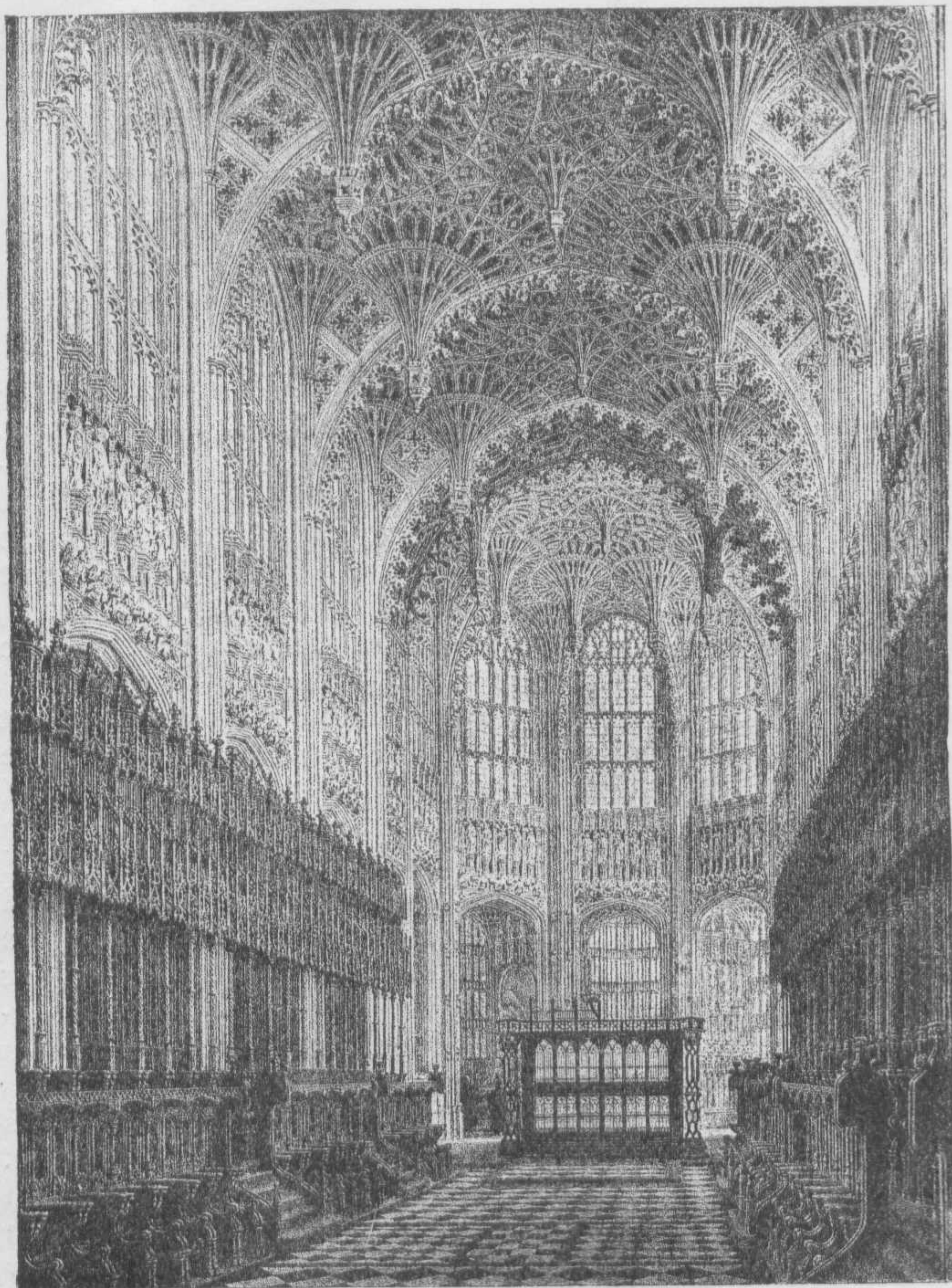
block depending on the next, and the whole structure cohering by the perfection of each minutest part. The very richness of the work, the seemingly lavish tracery, the perforated ornaments behind the spring of the main arches, all help to weld it into one abiding whole. It is a fit type of the noble strength of perfect unity. For, so say the masons, if one stone were to give way, if one boss were to fall, the whole roof would collapse.

Nothing gives one a just idea of the awful weight of stone in that roof until one has climbed above it. Would that I could take you, my readers, as I have taken more than one American child, for a wander about the roofs of the Abbey. It is a world within a world. Do not fancy it is all dark and dirty and terrific. Not at all. I know few more charming excursions. A little door in the corner of the north transept lets us into a turret staircase. Up and up it winds, round the solid smooth shaft of stone, till we reach the Triforium. This is the row of double trefoil-headed arches that runs all round the Abbey above the great pier arches. From below you think, how frightful to be up on that narrow ledge, clinging to the wall. But when you get up to it you find it anything but a narrow ledge. It is a grand gallery twenty feet wide, and large enough to drive a coach and four along it, lighted at many points by rose-windows in the outer walls. The double arches and slender pillars which look so beautiful from the ground, are just as interesting when seen close. Hardly two of them are alike; the builders of those days did their work in no grudging spirit, but lavished fresh designs upon every yard.

It is a strange sensation up aloft in this wide gallery, looking down a sheer sixty feet into the grand Abbey, peeping at the stalls of the choir, peering down the pipes of the organ, watching the people wandering like flies over the pavement below us. But the strangest experience of all is such an excursion as I am describing at night. One such wandering is specially impressed on my memory. Some American friends were with us; and lighted by one little lantern we threaded our way through the darkness, through the solemn stillness

of the wonderful building, and came out into the Triforium. Then suddenly three or four clear rich voices, one of which is well-known to all who fre-

—old oaken chairs, bits of stone carving, paraphernalia for the coronation or for any great ceremony. We walk under the painted glass windows that we



INTERIOR OF THE CHAPEL OF HENRY THE SEVENTH.

quent the services at Westminster, came floating up from the gulf of gloom beneath us, singing,

Lift thine eyes, oh! lift thine eyes to the mountains,
whence cometh help.

I do not think any one of us will ever forget the startling, overpowering effect; or listen again to Mendelssohn's trio without a thrill.

But we must go on. In only one place is the way perilous—just under the great window in the north transept; for there the passage does narrow to a ledge; and the Clerk of the Works, who always accompanies these wanderings in high places, bids the untried hands be careful. Once past the window all is plain sailing again. We make our way round, above the Confessor's Chapel, and see his coffin lying in his shrine. We pass great rooms where all sorts of *débris* from the building are kept

in the cloisters, but they get their living by preying on the poor dear Abbey pigeons.

However, we did not climb all this height to talk of cats and pigeons; and if you once find yourselves in this strange place you will give them but little thought. For under our feet is a great stone sea—vast circular pits and troughs of solid stone, a very maelstrom of rock. Each of those great wells narrowing towards the bottom represents one of the gigantic bosses below. And here one's wonder is I think increased sevenfold, and we ask how was it possible to poise this prodigious weight on those slender walls. But if we want an answer to our question we must look outside the chapel, and observe the graceful Flying Buttresses, which hold roof and walls together, springing from the upper part of the windows, and ending in tall turrets which run down and bury themselves in the ground. The buttresses are so light, and so richly carved,

and the turrets look so completely ornamental, with their crockets, and the delicate canopies over the niches—empty alas! and their string-course formed of the Tudor arms, that one thinks of them merely as a lovely part of a lovely whole. So they are. But they are one of the chief means of binding that splendid roof together—of keeping the walls from being pulled inward by the mass of stone they have to support. They act like guy-ropes to keep a flagstaff upright.

Thus far we have seen how by Edward the Sixth's time the mediæval architecture has given place to the Tudor, the feudal Gothic to the more domestic Perpendicular. But in the constitution of the Abbey a far more momentous change had taken place. In Henry the Eighth's reign the Reformation shook the life of England to its very foundation. It is not my intention to enter upon that vast and deeply important subject. I only wish to show you some of its effects on Westminster Abbey. The Abbey and Monastery of Westminster shared in the general Dissolution of Monasteries in 1539. The last Abbot of Westminster was converted into a Dean, and "the monks were succeeded by twelve Prebendaries, each to be present daily in the choir, and to preach once a quarter."* The "Abbot's Place" was to be known henceforth as the "Deanery." And for us, who have known that Deanery in the brilliant days of Arthur Penrhyn Stanley, what memories does the name awake. But more. All the relics in the Abbey that had been given, as we have seen, by successive kings, and with them Llewellyn's golden crown, and the banners and statues around the shrine of St. Edward, all these were swept away as worthless or worse than worthless. Even the bones of the Confessor were not respected; but were moved and buried apart, until Queen Mary brought them back and laid them once more in the shrine where they had reposed so long, and where they rest to this day. Then robbers broke into the Abbey and carried off, among other treasures, the silver head from Henry the Fifth's monument; and in Edward the Sixth's reign, when the spirit of iconoclasm was at its height, the Protector Somerset even talked of demolishing the Abbey Church, and was only deterred from such an act of vandalism by the rising, some say, of the inhabitants of Westminster, or, by the sacrifice of seventeen manors belonging to the Chapter, for the needs of the protectorate.

A boy king was once more head of the English nation. When Henry the Eighth died in January, 1547, Prince Edward was not quite ten years old, his sister Elizabeth nearly fourteen, while Mary, the elder sister, was thirty-one. In less than a month after his father's death, Edward was crowned at Westminster, and very curious the accounts are of the ceremony. As was usual, the prince spent

the few days before his coronation at the Tower; and the procession from thence to Westminster was of extreme magnificence. The little boy was delighted by an Arragonese sailor who "capered on a tightrope down from the battlements of St. Paul's to a window at the Dean's Gate."* Logic, arithmetic, and other sciences greeted the prince on his way.

The service at which Archbishop Cranmer, the king's godfather, officiated, was still that of the Church of Rome; but it was greatly shortened, yet even shortened as it was, it was so long and exhausting that the poor little king was carried out fainting before it was over.

A "marvellous boy," "*monstrificus puellus*" as an Italian physician described him, must King Edward have been. When other boys have their heads full of bats and balls, of bird'snesting and fishing, this little lad was writing a diary of political events, the history year by year of his own reign—a strange document when one thinks of the author's youth. In it he gravely set down all manner of questions which usually trouble only old heads. And King Edward's journal is still one of the most valuable records of the time. Although it does not exhibit any very original views, this diary shows a strangely impartial spirit. It shows too a good deal of the coldness of the Tudor nature; for one is unpleasantly impressed at finding the young king recording the executions of his two uncles, Somerset and Seymour, with the most stoical indifference; and setting aside the right of his sisters Mary and Elizabeth to the crown, with a hard cold remark that they are "unto us but of the half-blood."



EXTERIOR OF THE CHAPEL OF HENRY THE SEVENTH.

By the time he was fourteen his precocious mind became aware of the manner in which his uncle Somerset had abused his power and taken advantage of his childhood. He saw how the exchequer

* Memorials of Westminster Abbey. p. 464.

* Memorials of Westminster Abbey. p. 81.

had been emptied by the rash wars with France and Scotland into which the Protector's ambition had dragged England. How the coinage was debased. How crown lands worth five million of English money of the present day, had been granted away to the Protector's friends. All this the boy-king saw. He felt the shame of his debts; and although he could do little to stop such scandals, he did what he could. According to a schedule which he devised, we find him diminishing the garrisons of the forts and the Irish army; ordering



EDWARD THE SIXTH.—From a Painting by Holbein.

greater economy in his household; cutting down the wardrobe charges, and disallowing various claims for fees.

Edward now took part regularly in public business, and began to inquire into the daily transactions of the Council. "He required notice beforehand of the business with which the council was to be occupied, and an account was given in to him each Saturday of the proceedings of the week."* There is a rough draft of his will, dictated to Sir William Petre the year before his death, which shows how his mind had dwelt silently on the events of his boyhood. "Should his successor like himself, be a minor, his executors, unlike his father's, should meddle with no wars unless the country were invaded." But of all the writings he left, the most interesting and important is an

unfinished fragment on the condition of England. Although it was written three hundred years ago, by a boy of fifteen, some of it is such fine and wholesome reading for us nowadays, that I must quote part of Mr. Froude's account of it.*

Looking at England, . . . as England was, the young king saw "all things out of order." "Farming gentlemen and clerking Knights" neglecting their duties as overseers of the people, "were exercising the gain of living." . . . Artificers and clothiers no longer worked honestly; the necessities of life had risen in price, and the labourers had raised their wages, "whereby to recompense the loss of things they had bought." The country swarmed with vagabonds; and those who broke the laws escaped punishment by bribery or through foolish pity. The lawyers and even the judges were corrupt. Peace and order were violated by religious dissensions and universal neglect of the law. Officers of trust were bought and sold; benefices impropriated; tillage ground turned to pasture, "not considering the sustaining of men." The poor were robbed by the enclosures; and extravagance in dress and idle luxury of living were eating like ulcers into the State. These were the vices of the age; nor were they likely, as Edward thought, to yield in any way to the most correct formula of justification. The "medicines to cure these sores" were to be looked for in good education, good laws, and "just execution of the laws without respect of persons, in the example of rulers, the punishment of misdoers, and the encouragement of the good." Corrupt magistrates should be deposed, seeing that those who were themselves guilty would not enforce the laws against their own faults; and all gentlemen and noblemen should be compelled to reside on their estates, and fulfil the duties of their place.

Boys and girls in all countries are apt to say "as happy as a king." I wonder if they ever think of the meaning of that phrase. Certainly a less enviable position than that of this young king cannot well be imagined. Holbein's portraits show him to us a delicate, precocious looking boy, with fine features, small mouth, and odd narrow eyes which glance with a keen penetration from under the sleepy lids. If he had been the son of some country squire he would have been living out of doors, making his frail little body strong and healthy, doing ordinary lessons, riding and leaping and playing tennis like any other lad of his age. But instead of this, we find him a mere tool in the hands of unscrupulous advisers, who are filling their own pockets and ruining the kingdom at his expense. He is pondering on matters of state when he ought to have been playing at marbles. Sitting for long hours in the council chamber, when he should have been riding about the forest with his hawks and hounds. Galloping all the night through, from Hampton Court to Windsor, when his uncle Somerset carried him off to serve his own ends, and thereby did the king's delicate chest an injury which it never recovered. And at length, after six years of a miserable, troublous reign, dying at Greenwich before he was sixteen, with the lords in council and the judges quarreling about his death bed.

* Froude, v. 440.

* Froude, v. 442.

He was buried at Westminster in the splendid chapel that his grandfather built and that his father finished.

His funeral, like his coronation, was remarkable in many ways. It was the first service of the Reformed Church of England ever used over an English sovereign. And this concession was made by the King's Roman Catholic sister, Queen Mary. She was not present; being at the requiem sung in the Tower under the direction of Gardiner, her chief adviser. Archbishop Cranmer conducted the service at Westminster. Thus "the last and saddest function of his public ministry which he was destined to perform,"* was the burial of his godson, this young king, whom he had both baptized and crowned.

"The one admirable thing which the unhappy reign produced,"† must however never be forgotten. While King Edward's uncle Somerset was ruining the kingdom, and paying with his head for his ambition — while the Duke of Northumberland was plotting to set aside Henry the Eighth's will, and to place his own daughter-in-law, the hapless Lady Jane Grey, on the throne of England — Cranmer, Archbishop of Canterbury, was working on quietly in the midst of all the uproar of war and treason, plot and counter-plot, at the English prayer book.

As the translation of the Bible bears upon it the imprint of the mind of Tyndal, so, while the Church of England remains, the image of Cranmer will be seen reflected on the

* Froude 6. 58.

† Ibid 5. 393.

calm surface of the Liturgy. The most beautiful portions of it are translations from the Breviary;* yet the same prayers translated by others would not be those which chime like church-bells in the ears of the English child. The translations, and the addresses which are original, have the same silvery melody of language, and breathe the same simplicity of spirit.†

One other admirable memory has the reign of Edward left in England. If you stand on Westminster Bridge near the houses of Parliament, and look across the Thames, you see several huge piles of red brick and white stone rising on the Lambeth shore. This is the modern St. Thomas's Hospital, one of the finest in England, built on the foundation which Edward made. Ridley in a sermon preached before the young king, urged the rich to be merciful to the poor and to comfort and relieve them by charitable works. The sermon so impressed the boy that he founded St. Thomas's — St. Bartholomew's Hospital, in Smithfield, where a few years later the martyrs were to suffer at the stake under his ruthless sister Mary — and Christ's Hospital, which we all know as the "Bluecoat" school, where Charles Lamb, and Coleridge, and Thackeray and many another learned man spent his schooldays. But the boy-king did yet more. In eighteen towns of England he founded the famous Grammar Schools which still exist under the name of "King's Schools," and "throw a lustre over the name of Edward,"‡ although he did not live to see the fruit of his noble thought.

* Prayer Book of the Roman Catholic Church.

† Froude. 5. 391.

‡ Green. Short History of the English People. p. 353.

SOUVENIRS OF MY TIME.

BY MRS. JESSIE BENTON FRÉMONT.

V.

WASHINGTON IN PAST DAYS (*concluded*).

MUCH of the solid faith in our country which made Germany take our war bonds is doubtless due to the long residence among us of Baron von Gerolt. Humboldt, who was his friend, had chosen him for minister to Mexico, where he was for many years, coming from there to us; also he was honored by close relations with his King. I think it was twenty-five years the Baron lived in Washington — studying our country, its resources, its representative men, and becoming from long conviction our fast friend. When so many reported to

their governments that the "Union was completely ended," he knew it could not be so, and held fast to the faith for which his own knowledge gave him reason. He gave proof of this faith by investing all his resources in our war bonds when they were first issued and were very low; and when he was retired, after a lifetime of service, these bonds had so risen in value that they made him a really wealthy man. He too had a delightful family, his wife being a German lady of the best high-type of home and society woman. Theirs was an elegant and hospitable home, and their long residence enabled them to form lasting friendships — one of the strongest and most valued of which was with Mr. Sumner. So many of the foreign ministers of my time were

either not married or had married American or English women, that a genuine representative woman of a foreign country had become unusual in Washington. My old friend Bodisco lived out his days happily with his American wife and children, dying and being buried in Georgetown. His successor also married an American; the wives of three successive French ministers were one from Tennessee, another from Washington, and the third from Boston. The Brazilian and Portuguese ministers were married to English ladies, and the wife of the Spanish minister was Scotch; and this last was a great gain for the present royal family of Spain. She was made Directress of the household of the eldest daughter of Queen Isabella, and had a shaping hand in the education of all the children—including the present king of Spain. Mr. Fox, the English minister of my early days, cared for nothing but cards—he slept by day and played all night. Mr. Pakenham, who came after, was also unmarried; but he made his house worthy of his position and it was the headquarters of refined pleasures in music and tableaux and many occasions of elegant gayeties.

Succeeding Mr. Pakenham came a fine and thorough English legation. Coming over direct in a man-of-war with the whole legation, and invited friends, with servants and all household belongings complete, and dropping anchor in the Potomac, Sir Henry Bulwer represented in every way his country. He was an invalid, but one of England's most capable diplomats. His nephew, a delightful lad of nineteen, was attached to the legation—this was the young author of *Lucille*, and known everywhere since as "Owen Meredith" even better than as the son of *the* Bulwer, or as Viceroy of India.

Lady Bulwer had a greater name still, for she was niece to the Duke of Wellington. She had grown up in Paris where her father, Lord Cowley, was for many years the English ambassador. Lady Bulwer knew music well. She had delightful musical parties. It was a charming house where talent embellished station and attracted the best in society. At one of her Tuesdays I heard a New York man telling her what they could show her when she came to New York—"and the dressing will astonish you."

Lady Bulwer had a specially languid manner (only *manner* though). She looked up at him—then in her slow clear voice: "*I am* astonished already. Your ladies here bewilder me by their many changes of dresses. In Paris one has dresses for different occasions, and one wears them while they are fresh. But you have *so* many changes—" and she sank back as though wearied by their memory.

The accession of a new monarch is always made known, officially, through the resident minister representing his country, which is quite sufficient on account of our great distance from Europe; there, however, the more marked formality of a

special envoy is made. This is in the same spirit that we make a personal as well as a written invitation where we wish to show respect.

When the present King of Belgium succeeded to his father (near the close of our war) he added this courtesy of a Special Envoy to us also—which was particularly well done in view of all the disturbed conditions created by the war.

This Envoy we had known when as a young man he had been attached to the Belgian Legation in Washington.

On his return homewards through New York he came to see me, glad, he said, to meet some one of the old society of Washington; he had been saddened by finding the old pleasant friendly society of Washington so completely dispersed by the war, and he stayed long talking over those times. He could not come back to dine with us that day, being already engaged, but did so the next, as the morning following he was to sail.

At dinner the next day, he was greatly interested in talking over the newer conditions of our country since he had known it. Then, the first explorations to the Rocky Mountains were only begun—now, Bierstadt, whom I had asked to meet him, was just in from one of his sketching tours in those mountains. We were pretty much a party of travellers; all at table had travelled much in America as well as Europe, and two of the ladies—both of them young, beautiful and unusually agreeable women—had been with their husbands in India. All were capable of comprehending not only the progressing growth of the country but also its future development.

What most impressed the Baron was the reasoning, orderly manner with which our people were accepting great changes.

A telegram was brought in which the General read, then sent round to me; I gave it to Baron Beaulieu, telling him there was another change. It was from a friend in Congress to say the vote had just been taken on the Fifteenth Amendment and it had passed.

There was wide difference of opinion, and feeling, among those present as to the result of the measure; but the Baron, who was at first speechless from the surprise of what he read, asked that he might keep that despatch to carry back with him and show to his King as part of the astonishing quiet and swiftness with which radical changes are made here.

I had been out the morning before when the Baron came and found him waiting for me, as he had been told where I had gone and must be at home now very soon; his time was so short he would not risk a second failure to meet me and so waited. After his steamer had sailed I received a note he had left for me, saying how agreeable had been the renewal of old acquaintance and the whole visit to our house, and enclosing "a little

offering" as he called it, but it was a generous one, for the charitable institution (the Nursery and Child's Hospital) at which I had been the morning he called. His wife, he said, was often the almoner of her friend, Mlle. de Rothschild, and knew the good even small sums might do.

The repose of "a place for everything, and everything in its place" is felt in the fixed framework of society in Washington where a long-established usage governs and makes order. Elsewhere local ideas give sometimes strange results—the strangest being where money alone dictates. But the national capital has as its society-head the one elected to be the head of the whole country—the Cabinet, the Supreme Court and Senate and House, with the Diplomatic Corps and heads of the Army and Navy make the fixed framework which secures distinction of position.

Of course the addition of attractive personal qualities and the advantages of wealth add to this, but they cannot confer it, nor can the lack of them lessen the official value of those not having them.

An introduction into society there by any one in position opens the whole circle. Even where such position is a thing of the past it has its old rights, and a most agreeable feature—peculiar to Washington society—is this recognition of past or inherited social importance.

This unwritten law was framed not without thought and trouble, but all had been settled long before my time. There still lingered however stories of rebelling women—one, of the spirited and charming Mrs. Livingstone of New Orleans. Accustomed to the high distinction of her husband, Edward Livingstone, she could not reconcile herself to the position of Attorney General being at the foot of the Cabinet.

She did not feel like the Scotch noble—"where the MacGregor sits, *there* is the head of the table."

"*Madame la ministre d'Etat*," and Madame of the National Treasury, "*Madame de la Guerre*," and "*Madame de la Marine*," too, she admitted, represented interests important enough to precede her; but "*to walk in to dinner BEHIND Madame POZEEFFEESE!—jamais!*"

But so it stands; and the Law which is master of all the country still follows after all Departments, even the Post Office.

What is *not* fixed, but ought to be, is the secure continuing in office of all officials connected with the working of the Government. This is not the place for so large and serious a subject. But only those who have lived in Washington through many changes of administration can realize the sad wrong of holding office only at the will of a President.

My father's efforts to remedy this—begun as far back as 1825—are among my many sources of pride in his wise, unselfish, public life.

As it is now, with each change of administration comes a panic as distressing as those which cause such griefs and disheartenings in business communities—and, during all the time, create a smothered atmosphere of fear and suppressed manliness which is not American.

You boys who read these pages will think of this, for soon you will be men, and then your intelligent knowledge of your country's business will give value to your vote. It will certainly add vastly to the sum of family happiness for men to know that their good behavior and efficiency secure permanence in Government employment.

And I, for one, hold that whoever can give happiness enjoys a divine privilege.

ENTERTAINMENTS IN CHEMISTRY.

BY HARRY W. TYLER.

IV.

COMBUSTION AND EXPLOSION.

WE have found that the burning of the candle is a rapid combination of its carbon and hydrogen with the oxygen of the air, causing a considerable development of heat and light. Nearly all fires, or combustions, are essentially the same as this—though we may have combustion without carbon, or hydrogen, or air, and without light, but not, however, without heat.

A stick of wood contains carbon and hydrogen like the candle, and when ignited burns with a bright flame, producing carbonic acid and water. If the stick is exposed for a long time to wind and weather, the result is nearly the same. A considerable portion of its hydrogen and carbon unites with the oxygen of the air, and produces, though gradually, the same amount of heat as if burned in a red-hot furnace. This slow combustion we call decay.

Another instance of combustion with no light, and apparently little heat, is the process continu-

ally going on in our lungs. Most of the carbon and hydrogen of our food on reaching the lungs in the blood, is thus consumed, and we could no more work, physically or mentally, without this combustion, than a steam-engine without a fire. If we withhold the supply of fuel by not eating, our bodies are gradually burned up — we become emaciated, and starve to death.

But carbon and hydrogen are not the only substances which burn. The brilliant sparks that fly from the glowing horseshoe under the blacksmith's blows are particles of iron, not merely red-hot, but actually burning. Iron burns in another way only too familiar to us all. If a bright clean piece of iron or steel is exposed to moist air, it soon loses its lustre, becomes coated with a brownish film of rust, and is finally corroded throughout. Just as the decay of wood is a slow combustion, so too is the rusting of iron. Indeed the process is more complete than at the forge, for rust contains one eighth more oxygen than the black scale. The metal magnesium which may be obtained in the form of ribbon, is easily ignited, and burns with a dazzling white light. Zinc also burns readily with a greenish flame. Just as the light of the candle flame depends on the presence of solid carbon particles, so that given by these two metals depends on the heavy solid particles of smoke formed by their union with oxygen.

We will now take up some experiments which must be performed with caution. Prepare only small quantities of the mixtures (out of doors if convenient) and keep none of the mixtures unused. First crush or grind a teaspoonful of dry chlorate of potash to a fine powder; a small clean mortar is best for the purpose. Mix a little of this powder thoroughly, but without rubbing, with some powdered sugar. Place a pinch of the mixture in a dry dish or pan, and add to it one drop of strong sulphuric acid — such as you may have used in making carbonic acid from marble. Violent combustion ensues, with vivid light. In order to understand this experiment, we will add the acid to the sugar alone. No combustion follows, but the sugar puffs up and becomes a mass of black porous charcoal. Hence the flame must depend upon the chlorate of potash. Now sugar consists entirely of hydrogen, oxygen, and carbon. Water, we remember, is composed of hydrogen and oxygen, and always one part by weight of the former to eight of the latter. Although sugar contains no water, its hydrogen and oxygen are in the same proportion to each other, namely, one to eight. Strong sulphuric acid absorbs water very greedily from everything in contact with it, with the development of

considerable heat. When it is added to the sugar, this tendency is so powerful as to unite the hydrogen and oxygen of the latter, and separate them entirely, as water from the carbon, which remains a charred mass. Chlorate of potash is a substance containing much oxygen, and giving it up very readily under the influence of heat. Hence when all these are brought together, the acid chars the sugar, and in doing so supplies so much heat that the carbon is burned by the oxygen of the chlorate of potash. Thus we have combustion without air.

We will now mix another portion of the chlorate of potash with its own bulk of flour of sulphur, without rubbing. Fold a pinch of the mixture in a scrap of paper, and strike it sharply with a hammer. You will not need to be told that a loud report follows.

Combustion produces large volumes of carbonic acid and other gases. If these gases are formed gradually, as in the burning of the candle, we call the action simply combustion; but if they are produced very suddenly, the result is an explosion. In our last experiment, the sulphur was so intimately mixed with the oxygen necessary to burn it, that the combustion was almost instantaneous.

We have now noted the action of chlorate of potash upon carbon and sulphur separately. But if we mix the chlorate of potash with both carbon and sulphur, we produce a gunpowder, but one too dangerous for practical use. Hence nitre, or the nitrate of potash, a substance which contains more oxygen, but does not give it up so readily, is substituted for the chlorate in common gunpowder.

The action of nitro-glycerine, and other explosives, depends upon the same principle; and although we speak of the combustion of gunpowder as rapid, that of nitro-glycerine is very much quicker. While gunpowder is gradually pushing a bullet through the gun-barrel, nitro-glycerine would send the barrel itself into a thousand fragments.

A brief account of the invention of gunpowder, from a quaint old book, may be interesting. A German monk named Schwarz, who lived several centuries ago, had a taste for scientific study unusual in that age. He employed the abundant leisure of monastery life in chemical experiments. One day, probably without any definite purpose, he placed a mixture of charcoal, nitre, and brimstone in an iron mortar, and for want of a better cover, placed a large stone over it. Unfortunately, or fortunately, the stone did not fit closely. A spark fell in, and a tremendous explosion followed. The narrative adds, that only after a long search did the astonished Schwarz find the stone, which had been carried to a great distance.

BOYS' HEROES.

BY EDWARD E. HALE.

V.

KING ARTHUR.

THE missionary Augustine, who went from Rome to Britain to convert the Saxons to Christianity, landed in Kent in the year 596. From that visit of his, with forty companions, the present organization of the English church is derived.

But there were Christians in Britain before Augustine. Christianity had been introduced there in the Roman Army, and so long as the Roman posts were maintained there, there were Christian churches. The native Britons had, to a very large extent, embraced some form of Christianity. The Saxons, who began to invade them as soon as the Roman garrisons were withdrawn, had no Christian faith or institutions. It is of the conversion of these Saxon intruders that we speak, when we say that Augustine and his companions converted England to Christianity.

For more than a hundred years before Augustine came, there had been a series of incursions by the Saxons, and of battles between them and the Britons whom they found there. The Romans, with their garrisons, had kept the peace. But, nearly two centuries before Augustine's time, the Romans had been so hard pressed by the warlike tribes who invaded them, that they had been obliged to withdraw their garrisons. In those two centuries the British tribes began to quarrel with each other. Much such a result followed as would follow in the East Indies now, if the English army was withdrawn. In the midst of these disturbances among themselves, the Saxons and Angles, from the north of Germany, found out that Britain was a good place to live in, and began their invasions. They were the neighbors of the Lombards or Longbeards, who at about the same time marched south into Italy, whose general was Garibald, a name which has re-appeared in another Lombard general of later time.

In these two centuries of civil wars, and war against invaders with very little written history, you may be sure, and very little civilization, there was just the chance for the growth of legends. "What your grandfather told," and "what your grandmother remembered," could grow in that soil, as mushroom spores will grow if you give them the soil they love. So that on the very ground where yesterday you heard no story at all, you might to-morrow hear of Jack the Giant Killer,

of Tom Thumb, of Jack and the Bean Stalk, of the Rye Pudding, of the four and twenty black birds, and if you were a little older, of Lancelot, of Gawain, of Elaine, of the Round Table and the Hundred Knights thereof.

When, in a historical mood, you look back in the chronicles, to see what all this started from, you do not find great comfort. Here is the very frank confession of Geoffrey of Monmouth, who wrote six hundred years after the time he says Arthur died:

"Whilst occupied on many and various studies, I happened to light upon the history of the kings of Britain, and wondered that in the account which Gildas and Bede, in their elegant treatises had given of them, I found nothing said of those kings who lived here before the Incarnation of Christ, nor of Arthur, and many others who succeeded after the Incarnation; though their actions both deserved immortal fame, and were also celebrated by many people in a pleasant manner and by heart, as if they had been written. Whilst I was intent upon these and such like thoughts, Walter, arch-deacon of Oxford, a man of great eloquence, and learned in foreign histories, offered me a very ancient book in the British tongue, which, in a continued regular story and elegant style, related the actions of them all, from Brutus the first king of the Britons, down to Cadawallader the son of Cadwallo. At his request therefore, though I had not made fine language my study, by collecting expressions from other authors, yet contented with my own homely style, I undertook the translation of that book into Latin."

You see that this excellent Geoffrey was surprised that in the two best histories of England which he knew, the great King Arthur's name was not so much as mentioned. This is probably due to the fact that he belonged in romance and not in history. The truth is, that there were, in those ages, many kings and many lords. Where the Saxons landed, and made a raid, the Britons gathered and opposed them. But gradually the Saxons made head against them, and established their permanent colonies, exactly as, later down, their descendants established Massachusetts, and Providence Plantations, and Maryland and Virginia in America. In after years, more or less was remembered of the British chieftains, and on this more or less, all the romance writers, when the time for romances came, hung their stories.

The "Anglo-Saxon Chronicle," one of the old

collections of annals, supplies in simple form the most important facts for the years in which Arthur lived, if he lived at all. You ought to read it, to see what history is made from.

Anno. 508. This year Cerdic and Cynric slew a British king, whose name was Natan-leod, and five thousand men with him. After that the country was named Natan-lea, as far as Cerdicsford [Charford].

A. 509. This year St. Benedict, the abbot, father of all monks, went to heaven.

A. 510-513.

A. 514. This year the West Saxons came to Britain with three ships, at the place which is called Cerdic's-ore, and Stuf and Whitgar fought against the Britons and put them to flight.

A. 515-518.

A. 519. This year Cerdic and Cynric obtained the kingdom of the West Saxons; and the same year they fought against the Britons where it is now named Cerdicsford. And from that time the royal offspring of the West Saxon reigned.

A. 520-526.

A. 527. This year Cerdic and Cynric fought against the Britons at the place which is called Cerdic's-lea.

A. 528-529.

A. 530. This year Cerdic and Cynric conquered the island of Wight, and slew many men at Whit-garas-byig. [Carisbrooke, in Wight.]

531-533.

A. 534. This year Cerdic, the first king of the West Saxons, died, and Cynric his son succeeded to the kingdom, and reigned from that time twenty-six years; and they gave the whole island of Wight to their two nephews Stuf and Whitgar.

535-537.

A. 538. This year, fourteen days before the Kalends of March, the sun was eclipsed from early morning till nine in the forenoon.

A. 539.

A. 540. This year the sun was eclipsed on the twelfth before the Kalends of July, and the stars showed themselves full-nigh half an hour after nine in the forenoon.

Now, remember that, according to Geoffrey of Monmouth, Arthur died in 542. Observe that in the Anglo-Saxon Chronicle there is not one word about him in thirty-four years before that time. Then you will understand that he could not have been the single king of all England which the romances describe.

Dr. Lingard says of him: "We know neither the period when he lived nor the district over which he reigned. He is said to have fought and to have gained twelve battles. In most of these, from the names of the places, he seems to have been opposed to the Angles in Lincolnshire, from the last, at Mt. Badon, to the Saxons under Cerdic or Cynric. This, whether it was fought under Arthur or not, was a splendid and useful victory, which for forty years checked the advance of the strangers. Perhaps when the reader has been told that Arthur was a British chieftain, that he fought many battles, that he was murdered by his nephew, and was buried in Glastonbury, where his remains were discovered in the reign of Henry the Second, he will have learned all that can be ascertained at the present day, respecting that celebrated warrior."

It is a good deal as you might read a good history of the United States for the first half of this century, and possibly not find the name of Tecumseh; or as you might read one of the last half of the century which should not mention Sitting Bull. But if, a hundred years hence, you went among a spirited tribe of Indians, who had advanced a century toward civilization, you might find enthusiastic accounts of Sitting Bull and of Tecumseh preserved in ballads and stories. And these accounts, very likely, would surpass anything which was true or even possible in the real lives of those chiefs.

I may say, in passing, that both Tecumseh and Sitting Bull were men quite as accomplished as the real King Arthur was. As for weapons and arts, they were quite in advance of him.

What King Arthur means, then, to you and me, is this. He is the Hero of Chivalry, as Chivalry conceived of a Hero, when Chivalry was at its best. Sidney Lanier's edition of Sir Thomas Malory's History of King Arthur and his Knights of the Round Table is a book all boys will like to read, and it will be an excellent introduction to the Romances of Chivalry. If you ask my advice, you will read that first. Then you can read the Welsh traditions of King Arthur which this same Sidney Lanier edited, under the title of the Boy's Mabinogion. Here is a good piece from Sir Thomas Malory:

"Now assay," said Sir Ector to Sir Kay. And anon he pulled at the sword with all his might but it would not be. "Now shall we assay?" said Sir Ector to Arthur.

"I will well," said Arthur, and pulled it out easily. And therewithal Sir Ector kneeled down to the earth, and Sir Kay.

"Alas," said Arthur, "mine own dear father and brother, why kneel ye to me?"

"Nay, nay, my lord Arthur, it is not so: I was never your father nor of your blood, but I wote [*know*] well ye are of an higher blood than I weened [*thought*] ye were." And then Sir Ector told him all. Then Arthur made a great moan when he understood that Sir Ector was not his father.

"Sir," said Ector unto Arthur, "will ye be my good and gracious lord when ye are king?"

"Else were I to blame," said Arthur, "for ye are the man in the world that I am most beholding [*obliged*] to, and my good lady and mother your wife, that as well as her own hath fostered and kept me. And if ever it be God's will that I be king, as ye say, ye shall desire of me what I may do, and I shall not fail you."

"Sir," said Sir Ector, "I will ask no more of you but that you will make my son, your fostered brother, Sir Kay, senechal of all your lands."

"That shall be done, sir," said Arthur, "and more by the faith of my body; and never man shall have that office but he while that he and I live."

Both Lord Tennyson and Lord Lytton in our time have felt that in this legend of Arthur was the best subject for a great English poem. Lord Lytton said once, that he had more hope of being remembered in another century, because he had written *King Arthur*, than for any fame which any of his novels would have then. But you will find

it hard to buy a copy to-day, and there are good public libraries which do not contain "Bulwer's King Arthur." I am afraid that in truth Bulwer had "to pump." That is a phrase Mr. Emerson once used to me when he was speaking of another poet. The story is difficult to follow, it is long-winded, it is not founded on the real legends, and you cannot help feeling that Bulwer determined to write three verses a day, and wrote them regularly. Still there are noble passages in it. I remember that dear Starr King was very fond of it, and used to quote exquisite verses from it.

Here is Arthur's prayer when Merlin has revealed to him that

to the Saxon's sway
Thy kingdom and thy crown shall pass away,

Arthur cries

O thou, the Almighty lord of earth and heaven
Without whose will not e'en a sparrow falls,
If to my sight the fearful truth were given,
If thy dread hand hath graven on these walls
The Assyrian's doom, and to the strangers' sway
My kingdom and my crown shall pass away,

Grant this — a freeman's, if a monarch's prayer! —
LIFE, while my life one man from chains can save;
While earth one refuge, or the cave one lair,
Yields to the closing struggle of the brave! —
Mine the last desperate but avenging hand,
If reft the sceptre, not resigned the brand!

But, as every boy knows, who will read these lines, the tenderness, the vigor, the simplicity and

the truth of Lord Tennyson's Idyls have made men and women forget all the other poetry about King Arthur. The Idyls have been published at various times, and are not published in the chronological order of their own story. But in the later editions you will find in what order the author means that they shall be read.

"It is all good," — as — said of —, — no matter for that story now. It will do another time. We will take almost at haphazard the true account of Arthur's origin:

To whom the novice garrulously again:
"Yea, one, a bard; of whom my father said,
Full many a noble war-song had he sung,
Ev'n in the presence of an enemy's fleet,
Between the steep cliff and the coming wave;
And many a mystic lay of life and death
Had chanted on the smoky mountain-tops,
When round him bent the spirits of the hills
With all their dewy hair blown back like flame:
So said my father — and that night the bard
Sang Arthur's glorious wars, and sang the King
As well nigh more than man, and railed at those
Who called him the false son of Gorlois:
For there was no man knew from whence he came;
But after tempest, when the long wave broke
All down the thundering shores of Bude and Bos,
There came a day as still as heaven, and then
They found a naked child upon the sands
Of dark Dundagil by the Cornish sea:
And that was Arthur; and they foster'd him
Till he by miracle was approven king:
And that his grave should be a mystery
From all men, like his birth: and could he find
A woman in her womanhood as great
As he was in his manhood, then, he sang,
The twain together well might change the world.

THE MAKING OF PICTURES.

BY SARAH W. WHITMAN.

V.

WATER COLOR.

BEFORE speaking of water color, let me say a few words in regard to what are called "dry processes," because it is very necessary that these should be explained and understood; while they are properly described here, for the reason that they are near of kin to water colors.

Pencil, chalk, charcoal, crayon and pastels are the various substances used for working in a dry medium; every one of these having its own especial place and value. Let us see briefly what is done with each.

Pencil is mainly used for making slight sketches

in outline, or sometimes to produce delicate shaded drawings, where refinement and nice rendering of detail is sought. Architectural drawing is done with pencil often, because of the facility it bestows in making with the same point light or dark, fine or coarse lines; and also because it can be so readily erased. The color of work done with pencil is a cool gray, approaching black in its darkest tones; but never reaching that fine velvety black which may be obtained with both charcoal and crayon.

Charcoal — consisting of slender sticks of willow wood burnt to a coal — is the freest medium which can be found for doing black and white work. Nothing equals its variety, nor the facility with which it may be used. Equipped with a block of paper, a stick of charcoal, some morsels of bread,

and a "stump" or rolled bit of chamois leather, the student can obtain effects of the most vital sort; brilliant, rich and exquisite all in one. The methods of use are also various; sometimes involving the preparation of the paper, by putting a soft gray tone over the whole surface, which can be done by passing the charcoal over it broadly, and then smoothing and blending it with the leather on the palm of the hand. On this prepared tone the darks are added firmly and carefully, and the high lights wiped out with bread, which restores the white paper again. Another, and on the whole more practical method, is to draw a slight outline of the objects to be represented, and then proceed to give each in its true "value." (This word "value" is apt to be misunderstood. It means, as applied in matters of art, the relative shade of each object with regard to every other. For example, if in a picture, white represents the lightest shade, and black the deepest, then each thing in the picture will be of *some shade* between these two extremes; and to make in drawing, or painting, these shades exactly true is one of the most difficult, as it is one of the most essential things in the making of pictures.) Charcoal is more nearly related to oil-painting than any other black and white process, owing to the depth and fullness of its tones. In short, the power and value of charcoal among the dry mediums is very great, the only objection to the use of it being its very facility; affording thus temptation to the careless student to content himself with quick effects, easily obtained, rather than with more thoughtful and earnest work.

A less capable but more substantial medium is black crayon. This is used often in elementary work done in schools and academies; as it is not easily erased, and demands a more painstaking mode of practice than charcoal. When drawings are made in crayon on colored paper, as is often the case, the lightest touches are put in with chalk.

It is but a step from chalk to pastels, but it is a long step; for it carries one into the realm of color. Pastels are, in fact, colored chalks; soft and delicate in texture, and made in an almost endless variety of tints, so that, comparatively speaking, one does not have to mix or blend the tones, but can take from a full box varying shades of the same color. Pastels in such variety as this are of recent origin. They were used in the last century with skill and success—while a few simple colors especially red and green chalks were employed by masters of the great Italian period—and perhaps as early as 1400. One serious objection to pastels is the fact that they cannot be "fixed" upon the paper as charcoal is fixed, by blowing upon the surface of drawings a fine spray of alcohol in which shellac has been dissolved; for in chalk sketches this destroys their purity of color. They must be put under glass as soon as possible, or at all events, must be treated with very great care. But, apart from this, it must

be admitted that pastels have an immense value in making studies when color as well as form is to be caught and held. Nothing can equal, for example, the readiness with which they can be used in making records of those shifting beauties which are found in sunset skies, or in masses of clouds, where light and tone and color vary every moment, and the value of one's tools is like that of a gift, "worth double if given quickly." Pastels have their limitations, as all processes have, but we shall see much good work done in them; and I bespeak your interest in their vivacity, their freedom, and their charming purity of tone.

We come at last to the department of water colors, which has for its material, as I said in my last chapter, colored matter mixed with water. When the color used is what is called *transparent*, it is really equivalent only to what may be called a stain; as it allows the paper, or whatever surface it is put upon, to show through it more or less. When it is called *opaque* color, then it is so thick as to entirely conceal the surface which is beneath it. This opaque substance is sometimes called "distemper color," and it is largely used in decorative work, and in places where broad, flat washes are required; while in the domain of Fine Art it has great possibilities for doing mural work, or painting upon the wall. When it is used in this way, for the sake of permanence, and for other reasons, the painting is done upon the *wet plaster*, so that when the whole mass dries, the color dries with it, and is "set" in the most durable manner possible. Work thus done cannot be retouched; if a mistake is to be corrected the plaster must be taken off, freshly laid, and the process repeated as before. Again the coloring matter is sometimes mixed with a waxy compound; and certain effects obtained by this preparation—this, however, is a method rarely used.

But so far as we are concerned with the province of water-color to-day, it has mainly to do with those sketches and pictures which may be seen constantly at exhibitions; and which are made by a rapidly increasing number of artists and amateurs. Let us try and understand the place which this work occupies in the realm of art; let us ask what is the distinguishing feature of water color painting. If, for example, you see two pictures, done respectively in oil and transparent water color, what is the first difference you notice between them? I think you would find that the first great difference lay in the fact that the water color had less reality; that is, it was a less *actual* representation of the objects which were portrayed. And this is true. Water color is an artistic method of presenting Nature in hints and suggestions; as an indication or a reminiscence of facts, rather than as a complete and deeply rendered statement of those facts. Or again, a picture in water-color is a sort of translation, according to the laws of art,

into a more delicate and ethereal language, where the colors are less intense, the accents less vigorous, the tones less deep, than in nature. Properly speaking, then, water color work involves a mental process, by virtue of which the artist not only sees the objects of his picture, but decides to represent them as differently from what they are; always of course according to the requirements of his art. All this is somewhat hard to understand, but I ask you to recognize these distinctions; for recognition helps us to comprehension, whether it be with men or things.

The technical processes of painting in water color are delicate and exact; the implements necessary for work few and simple. These are paper—usually white, for the sake of brilliancy, which is only obtainable on very light grounds—a box of paints, a bottle of water and a brush. The paints are to be had in cakes, or in little pans, from which the color, somewhat soft, is more readily used than from cakes. The covers of the box form a palette upon which the paint is laid in mixing. In oil-painting many brushes are desirable and even necessary; but in water color, one really good brush is all that is needed. This good brush, however, is only to be had at a high cost, four or five dollars; for it is made of long sable hairs, and so nicely adjusted that it tapers from a thick neck to a point of but a single hair, while it is so flexible that it can be used for a broad flat wash or the finest line. With these tools the student can follow one of many methods of painting; though in these days much preference is given to broad, simple treatment; so broad and so simple that sometimes the paper itself is made to represent required masses of white; and what one leaves out is as essential a part of the method as what one puts in. Skilful water-colorists to-day employ water very freely; and obtain many charming results in their liberal use of it.

But these things cannot very well be described in brief words; especially one needs to see the

processes or to make a careful study of the result. This last may be done to advantage constantly; for in this country the artists in water color are doing extremely good work, and one sees interesting pictures on every hand. The fact that indications and suggestions form a large element in water color gives great range for individual treatment; for what may be called personal expression. In the works of Mr. Winslow Homer you will see, for instance, examples of breadth and vigor, with a free and vivid touch; in Mr. Abbey's an equal freedom, but extreme delicacy, and perception of detail; in Mr. Ross Turner's charming and unsuspected glimpses of color; those intangible tones which exist everywhere in greater or less degree, and which while felt consciously or unconsciously, by many, are understood and made manifest by the artist.

It is necessary, you will see, to be somewhat educated in art to appreciate good water colors. When one first begins to look at pictures, one is generally interested in seeing what is *familiar*; it pleases one to find that this or that looks, in common phrase, "natural" to one; but in pictures, as well as in other things, any person of intelligence would soon grow weary of seeing only what they had seen before, or being told exactly what they already knew. Presently one comes to suspect that in a true work of art there is something one does not quite recognize; a suggestion of a new thought, a new beauty, in short, something *strange*, which one feels may be also *true*. When any of us begin to feel this in looking at a picture, we may be said to find ourselves on the threshold of a new knowledge; that knowledge which it is the function of art to teach us. And the department of art which we have just glanced at, in this brief fashion, is full of varied and lovely lessons. How varied may be seen when we remember that the scope of water color includes the dewy roses and fair landscapes of modern artists, together with the colossal splendors of the Sistine Chapel.

THE TEMPERANCE TEACHINGS OF SCIENCE.

V.—THE ACTION OF ALCOHOLICS UPON THE LIVER.

BY PROF. A. B. PALMER, M. D., LL.D.

IN the preceding chapter the qualities of foods, medicines and poisons and the differences between them were pointed out. This was done to determine the place of alcoholics. The word "intoxicants," which means poisons, so generally and properly applied to these articles, indicates

where they belong. As with other poisons, a medicinal effect from alcohol is possible; but the poisonous action is the chief, and, in the absence of disease, the essential or only one.

All scientific men in writing upon poisons class alcohol among them, and no one denies to this

article poisonous properties. Like other poisons independent of its bulk, it not only deranges life-actions but is capable of causing speedy death. The account given of its action upon the stomach shows its capability of inflicting severe injury upon that organ, but its injurious effects are not confined to the stomach even while remaining within it. The impressions made there effect other parts of the system. The nerves, which are distributed throughout every part of the body, carry impressions which are made upon one part to others, and thus change the actions and conditions of distant parts, and often of the whole system. When a swallow or two of brandy or whiskey is taken, an impression is made upon the nerves of the stomach which is at once conveyed to other parts, especially to the brain and heart, causing, for a time, an excitement of these parts. This is not the same in all persons; but usually an excited sensation is felt in the head, and the heart beats more rapidly. In faintness from whatever cause, the heart beats very feebly, and when one entirely "faints away" the beating ceases entirely, and the blood is not circulated in the brain. In this condition the impression of alcohol in the stomach may arouse those other organs to action, just as a smell of hartshorn, or the dashing of water upon the face, or the application of a hot iron, or a tingling blow will do, and thus relieve the faintness.

It is this effect of alcohol which makes people think it a stimulant—an exciter or increaser of strength and action; and in the sense that a strong odor, a hot iron, or a smart slap is a stimulant, the alcohol is a stimulant. But this effect of a drink of spirit lasts but a short time, usually but a few minutes. If the impression is very strong, if a large quantity is taken, instead of any stimulation depression immediately follows, and as in the case of an extensive burn, or a severe blow over the stomach, death may speedily be produced. Men, and more specially children, have died in a few minutes from a large dose of whiskey.

But the principal, the more characteristic, and the much more permanent effects of alcohol are from its absorption from the stomach into the blood, its operation upon that fluid, and upon the organs and tissues to which it is carried.

Though alcohol while in the stomach acts upon the gastric juice impairing its digestive power, and when the alcohol is much concentrated destroying its digestive action, yet under no circumstances does this digestive fluid change the alcohol. This is not capable of being digested, but is taken up by the vessels of the stomach simply diluted, mingling with the fluids it meets.

It is first carried to the liver and then to the brain and the rest of the system, and its principal action upon the liver I shall now attempt to describe.

The liver and brain have more attraction for

alcohol than any other parts of the body. When an animal or a person is killed by a large dose of this poison being absorbed, more of it is found in these organs than in any others.

The first effect of the alcohol on the liver is to irritate it, just as it irritates the mouth and the stomach, or, when applied strong enough, the skin. It causes distension of the bloodvessels, and the accumulation of a larger amount of blood in them than there should be. This results in swelling of the organ, partly from the larger quantity of blood in the vessels, and partly from effusion into it and an increase of the tissue. This change in the condition of the liver causes a change in its action, and even without much change in its size or structure, decided changes occur from the alcohol in its actions, and its important work of preparing the food carried to it and making it ready for the uses of the body, its office of making blood, of changing waste matter so that it can be carried out of the system by other organs, and its work of secreting bile are all imperfectly done.

This defective work leads to general derangement of the whole system. There is what is called biliousness, disturbance of the stomach, a coated tongue, foul breath, deranged bowels, headache, dizziness, dimness of sight, distressing dreams, a feeling of fullness in the side and stomach, and general uncomfortable sensations. Notwithstanding that these unpleasant effects are so frequently produced by what are regarded as moderate quantities of wine, beer, or spirits, yet each drink, by its narcotic or soothing effect upon the brain and nerves, especially if they are accustomed to it, may make the person feel better for the time, just as the distress produced by opium eating is temporarily relieved by repeating the dose.

But much more serious effects are in some cases produced by alcoholics, and beer is more apt to act in the way about to be mentioned than whiskey. An accumulation of fat is often produced in the liver, causing its greater and more permanent enlargement, and impairing more permanently its action. When this is the case stopping the use of the drink does not produce the same rapid improvement as in the cases before mentioned. But where the fat is deposited between the proper liver cells or structures, and not taking the place of them, abstaining from drinking may in time be followed by much improvement.

There is another fatty change much worse than this, where particles of fat take the place of the structure. This is called fatty degeneration, and when it occurs other organs are likely to be affected in a similar way; and this disease before a great while ends in death.

When any portion of the liver tissue is changed into fat that part cannot do its work, and as the change goes on action will cease and death must follow.

But other changes take place in the liver, and the one now to be mentioned is oftener produced by ardent spirits than by beer or wine.

I am quite aware that young people, or older ones, who have not learned about the particular structures of the body will not be able fully to understand minute descriptions of these changes should they be given, and such persons will therefore not be interested in these details. But some useful ideas on the subject may be received by reading these more general statements, and by making inquiries of parents or others who are able to make explanations, satisfactory knowledge may be obtained by even very young persons who are desirous of learning.

I will here only say that there is a disease of the liver called *Cirrhosis* from its yellow color, and the *hob-nail* liver from there being upon its surface rounded projections, looking like the large nails on the soles of an English laborer's shoes; and this disease is also called *gin-liver* from its always being produced by drinking strong liquor. The liver though swollen at first, becomes shrivelled and much smaller later, and all through it are small masses causing the inside to look like a cake of beeswax in which, when it had been melted, yellow peas had been mixed.

In this condition the blood cannot properly circulate through it, it cannot perform its proper functions, dropsy follows; and when the disease is established, death always occurs in a few months, or at the longest in a very few years.

As with certain alcoholic diseases of the stomach particularly *Cirrhosis* and contraction of its walls, even the abandonment of the alcohol comes too late.

This *Cirrhosis* as well as other structural alcoholic diseases is more likely to occur from steady drinking, though it be not carried to the extent of positive drunkenness, than from occasional debauches, however excessive, and however morally and socially degrading and disastrous. These structural changes of the liver from the effects of alcohol though sufficiently common to be very familiar to physicians, are not nearly so frequent as the derangements of action of this important organ from the same cause, without distinguishable changes of its structure.

Dr. Murchison late of London, a physician of the very highest authority on this subject, in his standard work on Diseases of the Liver, says these affections are exceedingly common in his country; and Sir Henry Thompson, one of the very first surgeons of the present time says, "Few are aware of the great mischief which what is regarded as the moderate use of fermented liquors [beer and wine] is doing in England."

Dr. Murchison, writing on the management of these cases, says: "A man first gives up malt liquors, and in succession, port wine, Maderia, champagne, etc.; then tries brandy or whiskey largely diluted with water. At last unless misled by the fashionable [as it was then in England] but to my mind erroneous doctrine of the present day, that alcohol in one form or another is necessary for digestion, or to enable a man to get through his mental or bodily work, he finds that he enjoys best health when he abstains altogether from wine and spirits in any form or quantity, and drinks plain water." The particular diseases which result from these derangements of the liver, produced or aggravated by alcoholics, are very numerous; Dr. Murchison makes nine classes with several varieties in each class. Among them he mentions as very frequent in England "gout," urinary calculi, biliary calculi, degeneration of the kidneys, structural diseases of the liver, and in fact lowering and degeneration of tissue throughout the body."

In an approach to old age, in those of even moderate alcoholic habits, there is a likelihood of fatty and calcareous or chalky matter taking the place of natural structures throughout the body.

The increase of fat so frequent in beer and wine drinkers, mostly produced by the action of these articles upon the liver, makes some people think that these drinks are healthy, but such fat is an evidence of deranged nutrition and of lowered life power. There is a bloated condition which interferes with the ability to labor, and prevents the vigorous action of all the life forces. In the latter stages of "alcoholism" as the diseased conditions from drinking is called, emaciation may take place, especially in spirit drinkers.

Bacchus, the god of drunkenness, was represented by the ancients as corpulent, never as emaciated; but with the ancients alcoholic drinks were in the form of wine, not made stronger by the addition of more alcohol, as in nearly all the wines in our markets. Still some old drunkards were doubtless emaciated in the times of Grecian and Roman art; but it was not the object of that art, as it is not the object of much of our literature, to represent the repelling evils of the wine cup, but rather to paint in attractive colors its short and spurious pleasures. History has here as elsewhere repeated itself.

Ancient art represented the god of wine in the bloom of youth and in rosy plumpness, concealing the advanced bloating, and the occasional haggard emaciation. Modern literature sings the praises of the sparkling wine, but fails to tell of the woes which follow. The inspiration of truth, however, says, *At last it biteth like a serpent and stingeth like an adder.*

SEARCH-QUESTIONS IN AMERICAN LITERATURE.

BY OSCAR FAY ADAMS.

V.

AUTHORS AND PLACES.

81. What poet is widely known in connection with the Isles of Shoals?

82. What great theologian lived at Stockbridge, Mass.?

83. What writer was killed in battle at Big Bethel, Virginia?

84. What great recent orator is buried in the Granary Burying Ground in Boston, Mass.?

85. Mention at least seven authors who have lived some time at Concord, Mass.?

86. What writer was born at Kennett Sq., Pa.?

87. Name several literary women who have lived at Andover, Mass.?

88. What political writer was killed in a duel at Weehawken, N. J.?

89. What writer made Tarrytown, N. Y., famous as his residence?

90. What two poets (father and son) lived at Bordentown, N. J.?

91. Of what two poets is Sky Farm, in Berkshire Co., Mass., the home?

92. What writer lived by Otsego Lake, N. Y.?

93. What literary woman, once of note, spent the greater part of her life at Hartford, Ct.?

94. What writer called his home near Newburgh, N. Y., "Idlewild"?

95. What minor poet spent the larger part of her life at Newburyport, Mass.?

96. What noted novelist was long a resident of Charleston, S. C.?

97. With what writer is the Island of Penikese, Mass., associated?

98. What novelist and poet lives on an island in the Merrimac?

99. What once noted poet spent his life at New Haven, Ct.?

100. With what writer's name is Fort McHenry at Baltimore associated?

ANSWERS TO DECEMBER SEARCH-QUESTIONS.

41. Longfellow. See Lowell's poem "To H. W. L. on his Birthday, 27th February, 1867."

42. To Louis John Rudolph Agassiz. See Holmes' poem "A Farewell to Agassiz." See also Lowell's "Agassiz," Longfellow's "Fiftieth Birthday of Agassiz," and "Three Friends of Mine, III.," and also Whittier's "Prayer of Agassiz."

43. James T. Fields, John G. Whittier and Bayard Taylor.

44. To Nathaniel Hawthorne. The lines are from Longfellow's "Hawthorne." See also Lowell's "Fable for Critics," "At Hawthorne's Grave," by Miss C. F. Bates, and Lowell's "Agassiz" III., 5.

45. See Lowell's "Fable for Critics."

46. See Lowell's "Elegy on the Death of Dr. Channing." See also Longfellow's poem "To William E. Channing."

47. Henry Howard Brownell.

48. Ralph Waldo Emerson.

49. Henry David Thoreau. See also lines in Channing's "Near Home," beginning—"I see Rudolpho cross our honest fields."

50. Longfellow. Elmwood is the home of the poet Lowell.

51. "The Sicilian" is Luigi Monti, and "The Poet" is Thomas W. Parsons.

52. Nathaniel Parker Willis. See Lowell's "Fable for Critics."

53. See Longfellow's poem, "Charles Sumner." See also Miss C. F. Bates' poem "Charles Sumner," and "Sumner," by Mrs. Alice Wellington Rollins.

54. See "Bryant on his Birthday," by Whittier. See also "Bryant's Seventieth Birthday," by O. W. Holmes. Also see "Bryant," by Miss Charlotte Fiske Bates.

55. To Mrs. Stowe, in a poem by O. W. Holmes.

56. Cornelius Conway Felton 1807-1862. Author of *Ancient and Modern Greece*, etc.

57. Alice Cary and Horace Greeley.

58. Mrs. Lydia Maria Child. See Lowell's "Fable for Critics."

59. Washington Irving. See Longfellow's "In the Churchyard at Tarrytown."

60. Edgar Allan Poe. See Lowell's "Fable for Critics."

C. Y. F. R. U.

REV. J. H. VINCENT, D. D., AND REV. J. L. HURLBUT, D. D., SUPERINTENDENTS.
MISS K. F. KIMBALL, PLAINFIELD, N. J., SECRETARY.

[This department, while not less interesting to the general reader, is especially set apart for the CHAUTAUQUA YOUNG FOLKS' READING UNION, the young people's branch of the Chautauqua movement for popular home education. It supplies a course of reading for young people which is intended to give them the most valuable knowledge in the most interesting manner. The Required Readings are issued simultaneously in WIDE AWAKE and the CHAUTAUQUA YOUNG FOLKS' JOURNAL; a few added books form the Supplementary Readings. The Union is under the direction of REV. J. H. VINCENT, D. D., and REV. J. L. HURLBUT, D. D., as Superintendents, in connection with the Editors of the magazines mentioned above. Any person, young or old, may become a member of the Union by sending his name and *ten cents* in postage stamps to the Secretary, MISS KATE F. KIMBALL, Plainfield, N. J., to whom inquiries for further information may be addressed.]

WE shall give our readers the benefit of some of the accounts of work in Local Unions of the C. Y. F. R. U., as they may give suggestions to others for their own programmes. One Union in Princeville, Illinois, consisting of young people between twelve and fifteen years of age, with one member only ten years old, has adopted the following plan. Besides the readings in WIDE AWAKE, they take each month three chapters in the History of Greece, and a given portion in each of the other books. All the topics in the month's readings are written on slips of paper, placed in a box, and drawn out, each by a member, who takes the lead and conducts his own subject in his own way. Also, each member writes five questions on the history, and two on each of the other subjects. These are shaken together in the box, drawn out by the members, and answered in the meeting. This is a good plan to insure thoroughness in the reading of every student.

AN interesting session of the C. Y. F. R. U. might be held in a Local Union, having for the subject the article in this number of WIDE AWAKE on "The Children of Westminster Abbey." The following should be assigned among the members as topics upon which papers may be written: 1. King Henry the Seventh, who he was, how he became king, and how he reigned. 2. A description of Henry the Seventh's Chapel in the Abbey. 3. Henry the Eighth, his reign and character. 4. King Edward the Sixth and his reign. 5. Thomas Cranmer, his life and death. If pictures could be brought to the circle representing places and persons referred to, it would add to the interest of the meeting.

IT would be well to divide the Supplementary Readings (those in the additional books) into ten monthly parts, in order to complete them by the end of July, leaving August and September for vacation; or if preferable, omitting July and August, and finishing the readings in September. Such a division would require five chapters each month from Miss Yonge's Greek History, and the selections for February would be from Chapter XXV. to XXIX. inclusive. Subjects to be assigned for papers in a meeting are: 1. The First Battle of Mantinea; 2. Pelopidas; 3. Epaminondas; 4. Philip of Macedon; 5. Demosthenes; 6. The Youth of Alexander the Great; 7. The Conquest of Persia. Two maps should be hung upon the wall, or drawn by the members, one repre-

senting Greece, the other the Persian Empire; and some members should point out the places named in the readings, drawing a flag wherever a battle took place.

THERE are two other books, besides the Greek History, in the Supplementary Readings. "Field, Wood, and Meadow Rambles," which is all about birds, and "Wild Animals." Let a bird and an animal be assigned as the subject of a talk or an article at each meeting; and when the member appointed to the theme has given his account, let each one present try to state some additional fact, or tell some story concerning it. This will lead to searching the cyclopædias and works of natural history, also to what is better — personal observation of the ways of birds and animals; and the discoveries will add interest to the meeting.

THESE are some of the exercises which form the programme of a Local Union at Waterbury, Conn., called the Pioneer Club, containing twenty-one members, varying from ten to seventeen years of age, eight of them being boys: "The meeting is opened by singing, usually a C. Y. F. R. U. song. Then the Secretary reads the minutes of the last meeting. A personation of some prominent American character, written by one of the members, is read, and the club usually succeed in telling the subject of the personation. One of the members reads a short selected poem. Then we read by turns from one of the C. Y. F. R. U. books, a set of which is owned by the club. The articles of the Required Reading in the WIDE AWAKE or JOURNAL are read at home, and by appointment, different members prepare questions upon them, which are asked at the meeting. Sometimes, for variety, we have a few questions in Mental Arithmetic, or a little spelling, or a song interspersed, and a game or a song at the close, which is promptly at nine o'clock." The personation is an original feature, and must set the members' memory at work on American History.

WE trust that the C. Y. F. R. U. competitors for the Money Prizes for Meritorious Work will be on time in sending in their essays, collection of animals, showman's speeches, and designs for handiwork. Accordingly we call fresh attention to the page in this number on which conditions of competition are published.

ANSWERS to Search-Questions should be addressed to Editors of WIDE AWAKE, 32 Franklin Street, Boston, Mass., with the words, "Search-Questions," in corner of envelope.

For titles of books to be given as prizes see the January WIDE AWAKE.

In reply to many inquiries: *We will receive answers to Search-Questions up to the date of the appearance of the printed answers, and will publish the names of senders, and allow prizes for correct complete list.*

Complete lists of correct answers to the December "Search-Questions in American Literature" have been received from members of the Union as follows:

"You and I Club" of Providence, R. I. (Bessie W. Olney Sec.), S. E. Whittaker, Charlotte D. Iles, Clara L. Shattuck.

Partial lists, and lists not wholly correct, have been received from members of the Union, as follows:

New Leeds Local Circle, Maryland (H. A. M'Cauley, Sec.), Class "88" C. Y. F. R. U. of Providence, R. I. (Laura A. Puffer, Sec.), M. A. Lanman, Norwich, Ct. (Louise C. Mershon, Sec.), C. Y. F. R. U. of Nora, Ill. (J. S. Hubbard, Sec.), Edith L. Johnson, Mary F. Duren, Effie M. Thorndike, Harriet W. Bray, Lakeside C. Y. F. R. U. of Westfield, N. Y., (Alice Holt, Sec.), Belle Fleming, Sadie Fleming, Frank Field of Macon City Club, Macon, Mo.

Additional partial lists of answers to the November Search-Questions have been received from members of the Union as follows:

Alice Underwood, Sadie Henderliter, Edith L. Johnson, Rocket C. Y. F. R. U. of Lebanon, O. (Viola M. Mull, Sec.), C. Y. F. R. U. of Nora, Ill. (J. S. Hubbard, Sec.), Frank Field of Macon City Club, Macon, Mo., Star C. Y. F. R. U. of Albion, Mich. (Mrs. D. Fall, Sec.), Star Circle of Providence, R. I. (Nellie F. Alexander, Sec.), New Leeds Circle of Elkhorn, Md. (Mary H. Little, Sec.), Ella M. Booth.

By an oversight, the name of Miss Bessie Montgomery was placed on the list of those who sent incomplete sets of answers to the October Questions; this young lady sent a complete list of correct answers.

The letters which accompany the answers to the December Search-Questions testify to the exceeding interest taken in this literary pleasure by our Chautauqua young folks. The general feeling is that the facts about books and authors thus learned will forever remain in memory. The "search," in many cases, has been in the face of difficulties which ought not to exist in our land. In some places there are no public libraries; in other towns the libraries do not contain the works of standard literature in which the answers are to be sought. But these persistent Chautauqua young folks will probably create a public feeling that will demand a change in this respect, and many families will probably buy the works of Longfellow, Lowell, Holmes, Whittier and other standard authors, that have never owned them before.

One circle writes: "We have indeed 'searched' for the five answers we cannot send, no less than for the fifteen we do send. However, we shall not give up, but try to find them before the answers are published."

Another writes: "We have no access to public libraries, but try to search well what books we can secure."

Another writes: "We do not have many books to refer to of the right sort."

And still another: "The public library of our nearest town is a small affair, and our own books and the books of our friends do not compass the information we desire. But we send our incomplete list if only to show that we are not afraid of hard work."

Another club writes: "We have searched everything we can get hold of, likely to give us the information wanted, but a few of the answers we cannot find. We could not bear to give them up and we have waited till this late hour, without success, and we wait anxiously to see the answers published. I hope we shall be in promptly with our next set, for we are hard at work at them. We are delighted with our work, and never knew our American authors, as well as we do, even now. Our mamas are delighted with the interest we take."

Nearly all answerers have promptly corrected the typographical error apparent in the printing of "Siena's saint" as "Sierra's saint" in the November Questions. Many as promptly missed Hawthorne's "e" from the spelling of "Pyncheon" in the same set of Questions. Two additional corrections are in order here: The answer to the second November Questions should read Elihu Burr~~itt~~, instead of Bur~~itt~~; Question 58 in the December set should read, "What writer is here called Philothea?"

THE "lines" of our Chautauqua are going out "to the ends of the earth." The "Chautauqua idea" is the most diffusive and pervasive of the Nineteenth Century ideas. It seems, to us children at least, that in every belt of balmy climate where there is a lake and a forest, a fresh Chautauqua is sure to rise with its Assembly, its C. L. S. C. and its C. Y. F. R. U. The latest and most delightful of these sylvan Chautauquas is at Lake de Funiak in Western Florida, where a great assembly is to open February 10, and to continue until March 9. Lake de Funiak is on the Pensacola and Atlantic railroad, connecting comfortably with the railroads of the East, West, and North; and almost all the lines have arranged to put a coupon of stop-over privileges at the Assembly on their New Orleans Exposition tickets.

It will be very pleasant, this winter, camping at the great out-door schools under the magnolias and live oaks. You can take your own camping equipage (the tent sites are free this year), and spend the rawest of the winter months on the turf—think of it! Or you can live at Hotel Chautauqua in elegance and luxury, or at comfortable boarding-houses. Somewhat of nearly everything that interests the C. Y. F. R. U. is to be taught at this Florida Chautauqua. There is a "Sunday-school Normal" led by Rev. Frank Russell; an "Art School" conducted by Miss Birch of the Washington Art Schools, Miss Ransom, the portrait painter, and Mrs. Vinnie Ream Hoxie; a "Kindergarten" for both mothers and children; a "School of Cookery" taught by Mrs. Ewing; a "School of Music" with Professor Sherwin of the New England Conservatory at its head; lecture lessons on forestry and farming; and numerous courses in literature and science. The C. L. S. C. and the C. Y. F. R. U., together, have Chautauquized the entire family; and Lake de Funiak is surely the spot for a winter family "outing."

THE WIDE AWAKE POST-OFFICE.

RUTHERFORD, N. Y.

DEAR WIDE AWAKE:

Annie L. Hall inquires how to preserve milk-weed pods. After they are dried procure a piece of wire and some white sewing silk. Take a seed in the fingers and moisten the downy part of it by just passing it through the lips, then lay the moistened part next the wire fastening it with the silk by winding it once around and so proceed laying the seeds very closely together. You will end by having a beautiful white, fluffy pompon that will be a decided rival to the thistle blow.

AUNT ADDIE.

QUINCY, Mass.

DEAR WIDE AWAKE:

I have been going to write to you for a long time, but have never fulfilled my intention till now. Your prized magazine is looked for all the month, and when I have received it I keep from reading it all through as long as possible, so as not to get rid of the pleasure it gives me. I have taken you ever since 1878, and like you more and more every year. I am fourteen years old and would like to correspond with some of the WIDE AWAKE readers of my age.

PANSY.

HOUSTON, Texas.

DEAR WIDE AWAKE:

I have been taking you for two years and like you so much. My teacher reads the stories to me. I enjoy the letters most of all, and would like to have my letter published as I want to surprise my papa. I am a little Texas girl, ten years old. I want to tell the WIDE AWAKE little girls and boys about my travels. I have been to New York City, Washington City, Canada, Virginia, and away across to San Francisco and Los Angeles, in California. But of all the beautiful places I have been to, I like my own home the best. I would like to correspond with Nellie Raff, if she is willing.

KATIE HOUSE.

SAN DIEGO, Cal.

DEAR WIDE AWAKE:

I am a native of California, and live in San Diego. The climate here is said to be the finest in the world. We have summer all the year round. I never saw snow but once; we had a snow storm in 1882 which was a wonderful sight. I was not in Southern California then, but in a little town near San Francisco. San Diego is the Spanish for St. James. The city contains about four thousand people. It is about five hundred miles from San Francisco, and one hundred and twenty-five miles from Los Angeles. The bay is very beautiful, and calm. The people are very proud of their magnificent harbor. The flowers and grass are green here during winter, and we have rain, but the summer months are dry.

We have a strange river here which supplies the town with

water. It is upside down. It flows under the sand, and is called the San Diego river. It has rained so often this winter that the river bed has been flooded, but now the water is sinking down under the sand again. Early in the winter I went over to an island in a row-boat with mamma, and my sister; there I saw a dead whale, it was a great curiosity to me. Then we went across to the barracks, and walked up the hill of Point Loma to the Light-house. We went into the Light-house parlor and saw some beautiful shells, and curiosities; then we climbed the stairs, and examined the lamp. The view of the ocean from the observatory is grand. There are some wonderful caves a few miles from San Diego at a place called La-Iola. They have been worn in the rocks by the surf beating for ages against them. Very pretty shells are found there at low tide, and delicate mosses. The abalone shells are also obtained, and have become an article of commerce. They are sent in shiploads to Europe, and return to us in the shape of pretty buttons, buckles, and other ornaments.

On the way to the Light-house the road branches off, and leads to the mussel-beds. This is a great picnic resort; millions of mussels are attached to the rocks, and at low tide very lovely mosses and shells can be found. Old San Diego is about three miles from the new town where we live. It has a forgotten look, and is going to decay. The old church is still there which was built one hundred and sixteen years ago; it is kept in repair. The Mission of the Spanish fathers is about eleven miles from the old town. Here are the ruins of the old Mission church, and the neglected orchards of olive-trees, etc. Behind the church in old San Diego are the two bells eighty-two years old. They were cast in sunny Spain and brought to sunny California. One of the bells is cracked, but the other has very sweet tones. I hope my letter is not too long. I have taken the WIDE AWAKE for three years.

KITTY V. FARISH.

DALLAS, Texas.

MY DEAR WIDE AWAKE:

You may think me previous in calling you mine, but you are, for I got you for a Christmas present, which was the nicest and most appreciated one of all. Well this is the first time I have ever written to you, but I doubt *very* much whether it shall be the last or not. I tried Miss Eliza Smallbones' receipt for molasses candy and it proved a perfect success. Three girls staid all night with me last night and while the storm was going on we made splendid candy from the above mentioned receipt. I should like very much to cut it out of my book to put in my scrap book but cannot as I intend to have my WIDE AWAKES for this year all bound into one. I would like very much to correspond with "Trix" if she is willing.

PET.

SCRIBNER HILL FARM (*Goffstown Centre*), N. H.

DEAR WIDE AWAKE:

This morning, as I sat on the piazza reading your interesting pages, I came across a letter, from a lady in this State, wishing to know the address of Miss Harris. That set me thinking of one I had written a long time ago to you but had not sent. Fortunately I knew its whereabouts, and thought, "Now is the time to re-write and send it, because it relates to Miss Harris and her home." I want to tell your readers that I spent some weeks in Warner, N. H., a few years since. Some one said to me before I left the city, "Miss Harris, who wrote *How we went Bird's-nesting*, lives there." After I had been there some time I was told where she lived and I watched the house with interest. You would not wonder at the beautiful articles that come from her pen if you saw her home. I was fortunate enough to have an invitation to call, and I saw Mixit and Buffit, the two pet kittens in *Door Yard Folks*. Indeed, I became acquainted with them before I did with their mistress, as they had often extended their gambols to the sidewalk, and one did not need to be introduced to them, as in their world formalities are dispensed with.

I am not good at describing people, so I shall not undertake to describe the petite, bright-eyed, brown-haired lady who sends such delightful articles to your pages, but I would like to tell you a little about her home.

On the corner of a green shady street stands an old fashioned yellow house, nearly hidden by trees and shrubbery; but if you come nearer, you see that it has been carefully cut away, and that what from the street seems a dense mass of living green, is in reality an immense natural arbor, under which one can sit, or walk, or swing in the hammock at will. Mixit and Buffit dart in and out in their wild delight skipping away into the big old-fashioned flower garden, and the green branches above are alive with birds.

But, dear WIDE AWAKE, I went in. The quaint room rises before me now, as I go back in imagination to the evening that I sat there at the twilight hour talking with the children's friend and her sister, whom the literary friends of the family call "the Suggester." She delights in notes, cuttings, scrap books, and is also known to some of you as the "Professor of Pasting."

A lovely river with quaint covered bridges, glides along but a few minutes' walk from the house, and in the distance rise the everlasting hills, blue Kearsarge lording it over them all. Many times since that summer have I returned to Warner in fancy, as I have looked up from the pages of "Wild Flowers" in WIDE AWAKE, or "Pleasant Authors" in the Chautauqua Readings, feeling a great debt of gratitude to the dear mistress of the old yellow mansion on the corner.

S. H. K.

OLYPHANT.

DEAR WIDE AWAKE:

Looking over the WIDE AWAKE Post-Office, I saw letters from a great many places and I thought I would write too.

I think the colored Frontispiece in the December number is exquisite. I also think M. E. B.'s verses, entitled "De-

cember," are very nice, for I love winter and I think December is the best month in all the year. I think Villa Hodsdon's letter to the WIDE AWAKE very interesting and I wish she would write again.

This will be the third year I have taken you. I think you have splendid stories, but it never seemed to me that the story entitled "Cacique John" ended as it ought to, and I wish the author would write a sequel to it and have John get away from those queer people.

ALICE.

GALENA, Ill.

DEAR WIDE AWAKE:

This is the first year I have taken you, and I like you very much. I think the stories of "Pansy Billings," "Aunt Polly Shedd's Brigade," "Tales of the Pathfinders," and "Some Little Shakers" are delightful. I have read a great many books and whenever I read about any place and do not know where it is I look it up in the atlas. I have quite a collection of curiosities. I have some coins one hundred years old and three plates and one cup that came over from England in the *Mayflower* ship that landed at Plymouth in 1620. I will exchange chestnut burs, petrifications in flint, or specimens from the Peru Mines, for shells, fossils, ores, or anything curious. I will also send a very beautiful specimen to any reader of the WIDE AWAKE, that will send me a horned toad.

LULU M. HATHAWAY.

PORTLAND, Me.

DEAR WIDE AWAKE:

Some one who wrote to you said that they liked Dickens' works. I like them very much. I like *Pickwick Papers* best. We had a sentence in Grammar yesterday which read, "In *Pickwick Papers* the conversation of Sam Weller is spiced with wit." I think that is very true. I have read a few of Miss Alcott's books, and I like all that I have read.

I went into the country this summer, and had a real nice time. My stomach must have been strong or it would not have stood what it did. The list for one day was cream, tops of young onions, raw turnips, green apples, cranberries, candy, peanuts, chokecherries and milk. Still I was not sick once while I was there! There is a dog down there who howls every time a bell is rung, and will not stop until the bell stops. One night he howled all night long at the moon. I woke up in the middle of the night and heard him, and it frightened me so that I got out of bed and went into the sitting-room. I pulled up the curtain to look out of the window, and saw what I thought was a man looking in. I opened the window, put my hand out, and it was nothing but the vines.

It may sound silly to you but I was scared at the time. I am twelve years old, and if any other little girl who likes to read and play dolls will write to me, I should be very much pleased.

CARRIE M. SAUT.

I should like to see a letter from another little girl who lives in Portland and takes the WIDE AWAKE. Her initials are E. S. W. and she is in the second class, Grammar-school.

To members of the Chautauqua Young Folks' Reading Union:

The Publishers of the C. Y. F. R. U. READING COURSE desire to show their pleasure in the high aims and praiseworthy perseverance of the members of the Union, most of whom have taken the three annual courses of Readings already published. Therefore they have decided to offer in connection with the next course,

Four Series of Prizes to the C. Y. F. R. U.

Each of the four series will consist of four money awards. (sixteen prizes in all):

\$10.00, \$5.00, \$3.00, \$2.00.

FIRST SERIES. In *Ways to Do Things*, in the Oct. '84 numbers of **WIDE AWAKE** and the **CHAUTAUQUA YOUNG FOLKS' JOURNAL**, Sarah Orne Jewett writes concerning "Town Clerks," proposing that every young person become a Town Clerk by making and preserving a record of all important and interesting events which take place in the town. The Publishers believe her suggestions will produce good habits of written expression, of observation also, and induce young people to take an intelligent and thoughtful interest in social and public affairs; and accordingly they offer Four Prizes of \$10.00, \$5.00, \$3.00, and \$2.00, respectively, to the writers of the four best Records or Neighborhood Diaries which shall be sent them by January 1, 1885. These records may be more or less historical or of current events only. The competitors must be Members of the C. Y. F. R. U., and not over eighteen years of age. Clearness, vivacity and conciseness of narrative, and good penmanship, will be taken into consideration. The prizes will be awarded and sent February 1, 1885. The names of the Winners will be announced in the March numbers of **WIDE AWAKE** and the **JOURNAL**.

SECOND SERIES. In the Nov. '84 numbers of **WIDE AWAKE** and the **CHAUTAUQUA YOUNG FOLKS' JOURNAL** there will be published, in *Ways to Do Things*, an article entitled "A Boy's Menagerie," which gives full directions for the manufacture of tent, cages and animals. To the four Members of the C. Y. F. R. U. who send the four best Collections of Animals which they themselves have drawn, colored and mounted, together with a set of Showman's Speeches concerning these animals, the Publishers will award Four Prizes, of \$10.00, \$5.00, \$3.00, and \$2.00, respectively. They will take into consideration good drawing, truth of coloring to nature, and the knowledge of natural history shown in the "speeches," also the wit and humor, also correct composition and good penmanship. Both boys and girls may compete, and competitors shall not be over fifteen years of age. This competition will remain open until February 1, 1885, and prizes will be awarded and sent March 1, 1885. The names of the Winners will appear in the April numbers of **WIDE AWAKE** and the **JOURNAL**.

THIRD SERIES. In the October 1884 numbers of **WIDE AWAKE** and the **CHAUTAUQUA YOUNG FOLKS' JOURNAL**, Rev. Dr. Edward Everett Hale begins a series of articles, *Boys' Heroes*. All boys, all girls, have their heroes, beings whom

they delight to dream about, beings who have achieved resplendent greatness or goodness, whose names they thrill with generous pride and admiration to hear. Dr. Hale, in making his list of twelve heroes, consulted with several boys and girls; but he could not hear, one by one, from the multitude. The Publishers here offer to the writers of the four best Essays, entitled "My Favorite Hero," Four Prizes, \$10.00, \$5.00, \$3.00, and \$2.00, respectively. The writers must be Members of the C. Y. F. R. U., and under eighteen years of age. Excellence of style and soundness of thought will be considered, also penmanship. This Competition will close March 1, and awards will be made and sent April 1, 1885. The names of Winners will be published in the May numbers of **WIDE AWAKE** and the **JOURNAL**.

FOURTH SERIES. There is a growing interest felt in handiwork,* by both boys and girls. The use of tools, in the construction of articles decorative and useful, is becoming a valued accomplishment. To encourage this taste, the Publishers offer Four Prizes of \$10.00, \$5.00, \$3.00, and \$2.00, respectively, for the four best Original Designs for any useful or decorative articles which can be made, presumably, by persons under sixteen years of age. These designs shall consist of the needful diagrams, accurate in shape and size reductions, definite descriptions of materials, and plain working directions. Housekeeping and furnishing conveniences, whether manufactured with "tools" or with needle, and appliances for out-of-door life and sports, will be considered in preference to articles purely decorative. Should any of the essays in this series be esteemed desirable for use in **WIDE AWAKE** or the **JOURNAL** they are to be the property of the Publishers for that purpose. This competition is open to all members of the C. Y. F. R. U. under twenty-one years of age, and to them only. It closes April 1, and prizes will be awarded and sent May 1. The names of the Winners will be given in the June numbers of **WIDE AWAKE** and the **JOURNAL**.

Offer Extraordinary!

A special Book Prize possible to ALL COMPETITORS!

In addition to the announcements of Prize Winners in the March, April, May and June numbers of **WIDE AWAKE** and the **JOURNAL**, there will be published in these numbers the names of all competitors whose efforts deserve *Honorable Mention*, and to all who win this distinction will be mailed, at the times of sending the money awards, a volume of the popular Young Folks' Library: to the boys, *Tip Lewis*, by Pansy; to the girls, *Margie's Mission*, by Marie Oliver.

Competitors must be subscribers to **WIDE AWAKE** or the **JOURNAL**.

All letters and packages must be fully prepaid, and addressed to D. Lothrop & Co., 32 Franklin St., Boston, Mass., U. S. A., and must be accompanied by the address of sender *within the parcels*. All matter accompanied by stamps and request for return will be returned to the authors at the proper time.

* See "A Boy's Workshop," C. Y. F. R. U. Course for 1883.

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† EXPLANATION. The regular price of the *Andover Review*, for example, is \$3.00. We furnish this *Review* with WIDE AWAKE, for \$5.60; the *Review* with either OUR LITTLE MEN AND WOMEN, or PANSY, for \$3.60; the *Review* with the CHAUTAUQUA YOUNG FOLKS' JOURNAL, for \$3.35; the *Review* with BABYLAND, for \$3.10.

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This is high praise; but before deciding that it is unmerited, send for a specimen copy of this magazine, which, with a copy of **Wide Awake**, or any other of our magazines desired

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BUILD WELL.

BUILD WELL. By Dr. C. A. Greene. Boston: D. Lothrop & Co., 1886. Illustrated. 12mo. Extra cloth, \$1.25. If there is any one subject more than another which may properly command the most earnest attention of the Christian philanthropist, and especially of the Christian physician, it is that of How to guard and ennoble the family relation, by attaching to parentage a due sense of the solemn obligations which it involves. To aid in the accomplishment of this work, and to convey at the same time other lessons of serious importance as affecting human health and happiness, is the aim of its author.

The book, as is clearly evident, embodies the results of the long and valuable experience of an earnest and thoughtful Christian physician. While the writer speaks of the relations of the sexes with the most perfect plainness, the language used is so faultlessly chaste, and the thoughts expressed so full of a devout Christian spirit, as not only to put out of mind all thought of that which is offensive, but to impress the reader with the deep importance and perfect sincerity of the views urged by the writer. The work is especially timely in view of the startling statements made by Dr. Anagnos, Superintendent of the Boston Institution for the Blind, in a recent address on "The Increase of Imperfect Children," "a remarkable increase" of which is shown by the census of 1880. Making due allowance for errors he says, "We find that the blind population of this country has increased fifty per cent., while the increase of the whole population is but eighteen or twenty per cent. What is the matter, and why the increase? We cannot find much satisfaction in looking over the statistics, but we find enough to show us that the cause is a simple one, the violation of these eternal, unchangeable laws of nature, which carry with them the most frightful punishment. How is it possible for the educated class of people to let these causes, which produce hereditary disease, go on without trying to check them? The causes are numberless—marriage of relatives is one. Persons so mated often think, when deformed and imbecile children are born to them, that it is the fruit of the wrath of God. Perhaps it is, but the surer cause is that a taint in one of the pair, when it is placed under favorable circumstances, is enlarged to an enormous extent, and consanguinity is a favorable condition. All forms of physical, and the speaker was forced to say mental, defects are the result. No father or mother is worthy of that grand appellation unless he or she does the proper thing by their children. They should plant in them the seeds which in after life will bring happiness of every description."

The purpose of this remarkably valuable book is to afford to parents the information which will make them the agents in doing the important work indicated by Dr. Anagnos.

The Experience of an Eminent Lecturer.

The magic lantern, which was in former days only a toy with its coarse and gaudy pictures for the amusement of uproarious children, has been improved and dignified by the introduction of photographic art.

Prominent among the gentlemen who have dignified the lantern by bringing to its aid the triumphs of photography is Mr. Edward L. Wilson, of Philadelphia. A natural artist, a superior photographer, and a fascinating speaker, Mr. Wilson has attained a national reputation. In winter he addresses large city audiences, and in summer he gives his illustrated lectures at the various camps of moral and religious instruction throughout the country. His photographic establishment is known throughout the nation, and is enriched with many original works of photographic art taken by himself in his tour through foreign lands.

In consequence of his intense devotion to the duties of his profession, Mr. Wilson some years ago became a confirmed invalid. The labors which crowded him in connection with the photographing of the Centennial Exhibits in 1876 first contributed to impair his naturally strong constitution. In these labors he had the constant charge of over one hundred artists and assistants, and was worked day and night beyond the reasonable capacity of even a very vigorous man. It is not surprising that his health gave way completely, nor that life became a burden hard to bear.

To one who called upon him a short time ago, Mr. Wilson told the story of his illness and his restoration.

"Run down?" he said. "Well, you may say so, when I tell you that the Insurance men wouldn't touch me. I had policies in two of our best companies, and I wanted more insurance. Both of them refused me. And yet, one year afterwards, one of them very gladly took a new risk on me, and the other was willing to. This was, of course, after I had fully recovered. Tell you how it was. The strain on me had been too great. *I ran down, down, down, gradually.* Although I had an excellent constitution, and had lived a strictly temperate life, I was so much *prostrated that for a long time I could not sleep more than an hour or two in the course of a night. I suffered with acute neuralgia, and with headaches, which, when they came on suddenly, would render me powerless to think or act.*

"One day, five or six years ago, when I was suffering with one of my terrible headaches, a friend whose mother had been cured of rheumatism by the Compound Oxygen treatment, said to me, 'Why don't you try oxygen?' I laughed at the idea, for I had no faith that such a thing could reach my case. Still I went to Starkey & Palen's office in Girard street, and inquired into it. I took a few inhalations, and laughed at it again. But I saw that Doctors Starkey & Palen were fair and truthful gentlemen, and I determined to give their Compound Oxygen a very thorough trial.

"Well, I might tell you a long story about it, but to be brief, *I recovered my health. Throat trouble went away and I had a decided increase of lung power. My good appetite returned as in former days.* My digestive organs became able to take care of all the food I gave them to dispose of. *In short I was good as new.*

"Most of this was accomplished in three or four months. But as I had been so much run down and wanted my restoration to be both complete and permanent, I continued the treatment for over a year varying it from time to time in amount and method.

"I went abroad in 1882, taking a protracted and somewhat laborious trip through Egypt, Arabia and Palestine. I was beyond the ordinary conveniences of comfortable travel and had to spend much of my time on camels and to do a great deal of walking and climbing. I found I could stand any amount of exposure. I could tramp the hills of Arabic Telvia as easily as any of my three companions. In all my tours abroad I had but two returns of severe headache; one at Mount Serval, the other at Cesaræ Philippi. I could eat anything that was set before me, and eat it freely.

"Since my return to this country, I have engaged in my old duties with more than former activity. I have lectured a great deal, and often in the open air, without any return of throat trouble. I have attended without difficulty to the details of my large photographic business. I used to be susceptible to colds; having them, in fact, from November to May, one on top of another. Now I have had, as far as I can remember, only two colds in three years, though I have been fully subjected to every description of drafts. I enjoy my eating, and I sleep well. It used to tire me to work my lanterns for an hour. Now I can easily do it for two hours without fatigue. My weight is about the same as of old; say 135 pounds. I can work, as a regular thing, about seventeen hours a day, and my work seldom tires me."

In these busy days of mercantile and professional activity, there are thousands of overworked gentlemen who are as greatly run down as Mr. Wilson was. Their restoration may be as complete as his, if they will try a course of Compound Oxygen. To know all about this invaluable vitalizer and restorer call on or address DRs. STARKEY & PALEN, 1109 and 1111 Girard Street, Philadelphia.



THE CHILDREN OF WESTMINSTER ABBEY.

BY ROSE G. KINGSLEY.

VI.

MISS ELIZABETH RUSSELL, "THE CHILD OF WESTMINSTER."

ON the 27th of October, 1575, there was a grand christening at Westminster. The tiny baby, wrapped in a mantle of crimson velvet, was carried with royal pomp into the Abbey. Some of the most splendid and famous personages of the day attended to do honor to the child, and the queen's majesty was godmother.

Who was this baby? Why was all this display and ceremony expended on an infant only five days old?

The little girl was of noble birth. She was daughter of John, Baron Russell, second son of the Earl of Bedford, one of that famous family which has given England some of her best statesmen for hundreds of years. Her mother was a daughter of Sir Anthony Cooke, of Gildea Hall in Essex, "a man of the ancient equanimity and worship," well known for his goodness and learning. Sir Anthony brought up his daughters to follow in his own footsteps. They were noble and accomplished gentlewomen and learned withal, for they could write easily in Greek, Latin and Italian, as well as in their own tongue. One of them, Mildred, married Sir William Cecil, afterwards Lord Burleigh, Queen Elizabeth's famous councillor and adviser. Anne was wife of Sir Nicholas, afterwards Lord Chancellor Bacon, whose son was the great philosopher, Francis Bacon, Lord Verulam.

Elizabeth, Lady Russell, the mother of our "child of Westminster," had been married before to Sir Thomas Hobby, ambassador at France. And when he died in 1566, Queen Elizabeth wrote a letter full of affection and esteem to his widow. In this letter she praises the dead Sir Thomas; and then goes on:

And for yourself, we cannot but let you know that we hear out of France such singular good reports of your duty well accomplished toward your husband, both living and dead, with other your sober, wise and discreet behaviour in that court and country, that we think it a part of great commen-

dation to us and commendation to our country, that such a gentlewoman hath given so manifest a testimony of virtue in such hard times of adversity. And therefore, though we thought very well of you before, yet shall we hereafter make a more assured account of your virtue and gifts; and where-insoever we may conveniently do you pleasure, you may be thereof assured. And so we would have you rest yourself in quietness, with a firm opinion of our special favour towards you. Given under our signet, at our city of Oxford, the — of September, 1566, the eighth year of our reign.

Your loving friend,

ELIZABETH R.*

It was "at our city of Oxford" that I chanced upon this letter. Reading in the Bodleian Library, at the end of the great cross gallery lined with rows of books, tier upon tier, I sat in this month of September, 1884, at a quiet table beside a huge stone mullioned window. One of its casements of leaded panes, guarded with brown rusty iron bars, was open. In the acacia-tree outside a bird was singing. Beyond the delicate green foliage, untouched by any thought of autumn, the towers and spires of the glorious city rose above red and gray roofs. The silence about me was only broken by the crisp turning of leaves or the stealthy foot-fall of the attendants bringing fresh heaps of books to the half-dozen busy workers. There was a fragrant smell of old books — of leather bindings — so dear to the student's heart. The warm, sweet outer air and hot sunshine streamed in at the open window. "The merry, merry Christ Church bells — one, two, three, four, five, six," chimed the quarters; and "Mighty Tom" tolled the hours as the morning stole by only too quickly.

Two hundred and eighteen years ago in this very month of September, Queen Elizabeth was at Oxford, on her way to or from Kenilworth Castle, and wrote the letter to Lady Hobby with those same Christ Church bells chiming the quarters and the hours within hearing of her lodgings.

Nine years after the queen's letter from Oxford, Elizabeth Hobby, who had meanwhile married Lord Russell, took refuge at Westminster from the plague which was then prevalent in London — that is to say in what we now call the city, where all the grand folks of those days lived.

* Wiffen's "House of Russell." Vol. i. p. 500.

Having obtained so much favor from Dr. Goodman, Dean of Westminster, as to have her lodgings within the late dissolved Abbey.*

Her little daughter was born in the precincts on October 22, 1575. Lord Russell wrote to announce the fact to his brother-in-law Lord Burleigh. He was sorely disappointed at the child being a girl. "I could have wished with all my heart to have had a boy:" but as that could not be he would like a wise man "rejoice in having a girl." Then he goes on to ask Lord Burleigh to



QUEEN ELIZABETH. — From painting in the English National Portrait Gallery.

pray the queen to be the baby's godmother. The queen willingly granted the request; for her old admiration for Lady Russell had by no means abated. Being at Windsor she sent Lady Warwick as her deputy "attended by Mr. Wingfield, the queen's gentleman usher, to direct all things in the same cathedral."†

Mr. Wingfield caused "a traverse of crimson taffeta" — a kind of enclosure or regal pew if there be such a thing — to be set on the right side of the altar, near the steps within the chancel; and in the traverse a carpet, a chair and cushions of state. This was for the deputy, Lady Warwick, who, as she represented the queen, was treated as if she were royal.

* Wiffen's "House of Russell." p. 502.

† Ibid.

Then a great basin was set up in the middle, near to the high table, a yard high, upon a small frame for the purpose covered with white linen, and the basin set thereon with water and flowers about the brim.*

On Thursday, October 27, at ten o'clock, all was ready. The witnesses and a great company were assembled; and they proceeded from the Deanery through the cloister. First came the gentlemen in waiting; then the knights in their places; the barons and earls in their degree. Then the godfather — none other than that famous and brilliant personage, Robert Dudley, Earl of Leicester, the only man whom the great Queen Elizabeth really loved — her cousin, "Sweet Robin." If you ever come to Warwickshire go to Kenilworth Castle, and see the remains of the grand Hall where he received the queen with more than royal state at three different times. Then go to Warwick, and see his effigy in the Beauchamp Chapel, lying beside his third wife, whom he married after poor Amy Robsart's death. Look at his handsome proud face; and then picture him to yourselves as he walked through the cloisters and into the noble Abbey, magnificent in dress and bearing, in the heyday of his youth, splendor and prosperity at little Bess Russell's christening. After the godfather came the unconscious baby — the centre of all this display — wrapped

in a mantle of crimson velvet, guarded with two wrought laces of gold, having also over the face a lawn, striped with bone lace of gold athwart, and powdered with gold flowers and white wrought thereon.

She was carried by the nurse, Mrs. Bradshaw. Her second godmother, the Countess of Sussex — Frances Sidney, aunt of Sir Philip Sidney, and foundress of Sidney-Sussex College at Cambridge, followed her. Then a gentleman usher. And then the Countess of Warwick, deputy for the queen. Her train was borne by Lady Russell's two sisters, Lady Burleigh and Lady Bacon; and after them came "other ladies and gentlemen, many."

The deputy went within the traverse, the rest remaining without, while the Dean made a short address. After it was over

Lady Bacon took the child and brought it to the font, where the Dean attended in his surplice. Then the Earl Leicester approached near to the traverse, and there tarried until the deputy came forth, from whence they leisurely proceeded to the font, the deputy's train still borne, where she christened the child by the name of Elizabeth; which done the deputy retired back into the traverse again, and the nurse took the child, and came down, and there dressed it.†

Now comes one of the most impressive and picturesque episodes in the story. The account says

* Wiffen.

† Wiffen. 503.

Mr. Philip Sidney came out of the Chapel called St. Edward's Shrine having a towel on his left shoulder, and with him came Mr. Delves, bearing the basin and ewer. Then the deputy came forth, her train borne, and they two kneeling, she washed.*

Imagine Philip Sidney, then twenty-three years old, appearing from the Confessor's Chapel, which as I have explained lies directly behind the altar, with his towel over his shoulder, to kneel before the good and charming Countess of Warwick—Philip Sidney, that exquisite and noble soul, the very type and pattern of all that is most beautiful and admirable in the age of Elizabeth.

Fair as he was brave, quick of wit as of affection, noble and generous in temper, dear to Elizabeth as to Spenser, the darling of the Court and of the camp; his learning and his genius made him the centre of the literary world which was springing into birth on English soil.†

Then other gentlemen with two basins and ewers, came to the Countess of Sussex and the Earl of Leicester; and they having washed, immediately came from the aforesaid place of St. Edward's Shrine, gentlemen with cups of hippocras and wafers; that done, they all departed out of the Church through the choir, in such order as before, the Lady Bacon carrying the child, and so the said ladies and godfather went into the Lady Russell's chamber.‡

Then the company went to dinner, "a stately and costly delicate banquet;" and grace being said by Lord Russell's chaplain, the lords washed and after rose and returned to Lady Russell's rooms.

The baby Bess, like babies nowadays, had her christening presents: "By the queen's majesty a great standing cup; Countess of Sussex a standing cup; Earl of Leicester a great bowl."§

So the pretty child's life began; ushered into that splendored and brilliant court with all the pomp and circumstance possible. Not only is the record of her baptism curious because it gives us a vivid picture of the court at that time, and a glimpse of many famous men and women who were present at it; but christenings have been few and far between at Westminster. For a long while they ceased altogether; and during this century up to about 1868 the few baptisms have been those of children of members of the Abbey Body. Since that date a very few children, more or less connected with Westminster, have been christened each year in Henry the Seventh's chapel. And on the last page of the register for 1883, there is the name of a little grandson of Alfred, Lord Tennyson—the Poet Laureate—a baby well-deserving such an honor, for his grandfather claims descent from King Edward the Third; and from his mother, whose wedding took place in the Abbey, he inherits the blood of Robert Bruce.

* Wiffen. p. 503.

† Green. p. 392.

‡ Wiffen.

§ Hargreave M. S. S. No. 497, p. 64.

The next we hear about our little Bess is some years later, when we learn that she and her younger sister, Anne, were appointed maids-of-honor to the queen. Their mother, Lady Russell, who was brilliant and vivacious, as well as learned in Latin and Greek, had considerable influence with Queen Elizabeth, and seems to have used her "kind enchantments" in the service of peace and goodwill at court. Towards the close of her reign sad days had come upon the great queen. She was growing old—though she could not bear to acknowledge the fact. Some of those in whom she had trusted most proved false to her—like Essex. Her splendid progresses through the country, her three thousand dresses, could no longer cheer the sad, lonely old woman, who had outlived so many of her early friends and counsellors. The violent Tudor temper which she inherited from her father became more and more ungovernable, and sometimes it showed itself towards the unlucky maids of honor.

The Queen, says Sir Rowland Whyte to Sir Robert Sidney, in 1600:

Hath of late used the fair Miss Brydges (daughter of the Lord Chandos), with words and blows of anger; and she with Miss Russell, were put out of the coffer-chamber, lying three nights at Lady Stafford's, before they could return to their wonted waiting.*

And what was their offence? They had ventured to take medicine without leave; and had broken some rule of court etiquette by "going through the private galleries to see the lords and gentlemen play at the *ballon*." This was early in 1600. But shortly afterwards the queen, with one of her capricious changes of temper, made the full *amende* for her words and blows of anger to poor Bess Russell, on the occasion of her sister Anne's marriage to Lord Herbert, son and heir to Edward, fourth Earl of Worcester. On June 9, 1600, Lady Russell went to court to fetch her daughter Anne away, "of whom the queen in public used as gracious speeches as she had been heard to indulge in of any." She sent her lords and maids-in-waiting to escort the bride and her mother to their house at Blackfriars. "All went in a troop away"†—the court attendants filling eighteen coaches.

The marriage took place on June 16 at Blackfriars, and the queen honored the ceremony with her presence. The bride met the queen at the waterside, where Lord Cobham, who had offered Her Majesty the use of his house, had provided a "lectica" made like half a litter, in which she was carried by six knights to Lady Russell's house. Happily we know what Blackfriars was like in Elizabethan days. At Sherbourne Castle in Dorsetshire, Lord Digby possesses a most interesting picture supposed to be painted by Isaac Olivier, of

* Sidney Papers. Vol. II.

† Wiffen. Vol. II, p. 57.

this very procession from the waterside. There is a pleasant background of fields and trees with two or three fine houses standing on the wooded slopes of Holborn hill. The queen, clad in a long-waisted dress covered with jewels, and wearing a great ruff open at the throat, which was only then worn by young unmarried women, is seated in a chair under a light canopy borne by six knights. Anne Russell, the bride, walks directly behind the litter, in huge hooped skirt of white, with a richly worked and bejewelled bodice. She wears an open ruff

like the queen's, which shows her throat. Her mother and Lucy Harrington, Countess of Bedford, who are her supporters, have close ruffs that cover their necks, and are dressed in black and gray with rich jewels. Nobles splendidly habited, go before, two and two; and ladies follow, among whom we may suppose that the fair Bess Russell figures. Lord Herbert, the bridegroom, carries the right end of the pole that supports the litter, and reaches his left hand back to his pretty bride who is close behind him. And next to him a slim and exquisitely dressed figure is thought by Mr.

Scharf to be Sir

Walter Raleigh, who had just returned with Lord Cobham from a mission in Flanders.*

After the marriage the queen dined with the wedding party at Lady Russell's, where "the entertainment was great and plentiful; and the mistress of the feast much commended for it."† At night — for in those days dinners were early — she

went to Lord Cobham's where she supped. And

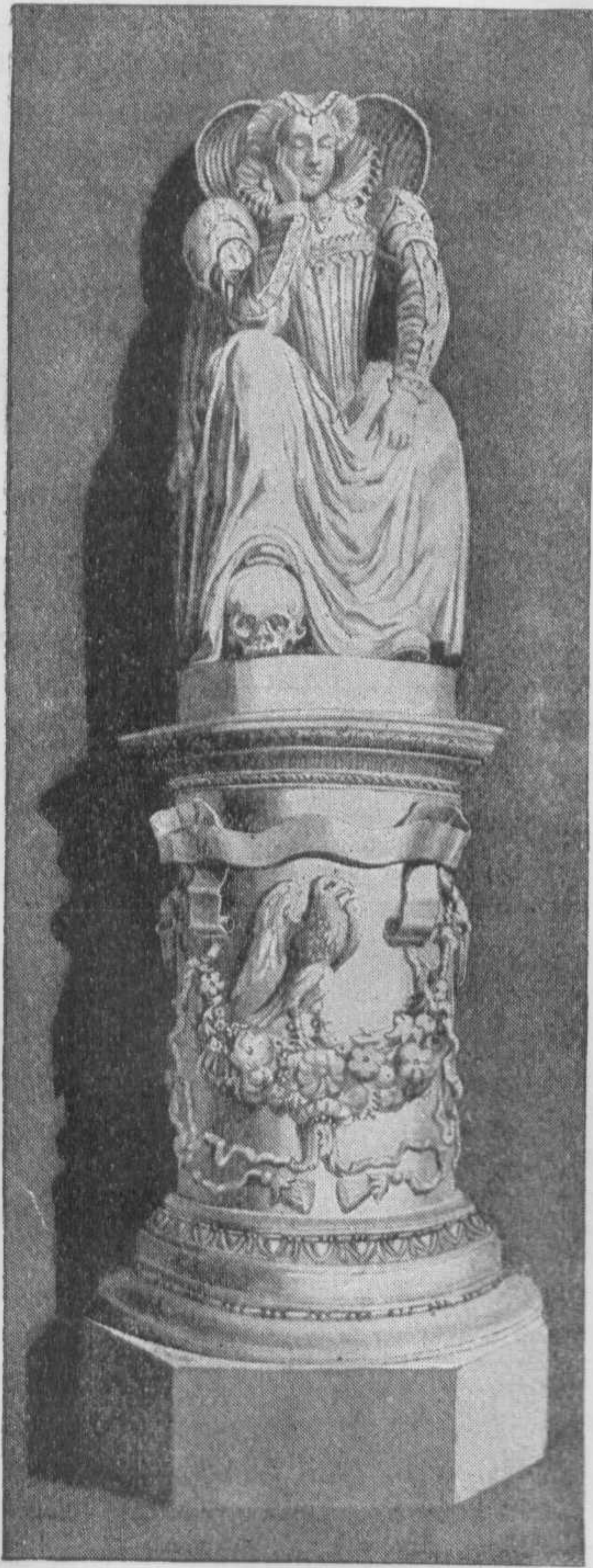
after supper came a memorable masque of eight ladies, each clad in a skirt of cloth of silver, a rich waistcoat wrought with silks and gold and silver, a mantle of carnation taffeta cast loose under the arm, and their hair loose about their shoulders curiously knotted and interlaced. The masquers were Lady Dorothy (Sidney), Miss Fitton, Miss Carey, Miss Onslow, Miss Southwell, Miss Bess Russell, Miss Darcy, and Lady Blanch Somerset, who danced to the music that Apollo brought; and a fine speech was made of a *ninth* muse, much to her praise and honor. "Delicate," says the narrator, "it was to see eight ladies so prettily and richly attired." Miss Fitton led; and after they had finished their own ceremonies, the eight lady masquers chose eight other ladies to dance the measures. Miss Fitton went to her queen and wooed her to the dance. The queen asked what she was. "Affection," was the answer. "Affection!" said the queen, "affection is false!" yet she rose and danced as did the Marchioness of Winchester.*

Poor, sad old queen, clinging like a child — like the true daughter of her hapless mother Anne Boleyn — to any amusement, excitement, display, that could divert her weary thoughts from her loneliness, from the burdening cares of state; with her bitter jibe at the falseness of affection, yet rising and dancing a measure with her maids-of-honor. It is as pathetic a picture as one can look upon.

So ends the record of the gay wedding at Blackfriars. But alas! within a fortnight the marriage rejoicings were turned into mourning. Our beautiful Bess Russell, the child of the court, the child of the Abbey, was consumptive. She grew rapidly worse, and a fortnight after her sister Anne's wedding she was dead. Her illness indeed, at the last, was so sudden that it gave rise to an absurd story, which was commonly believed one hundred and fifty years ago; namely, that she died of the prick of a needle in her finger which produced gangrene. This however is a mere fable, and only came into existence some seventy years after her death. She was buried in Westminster Abbey — that Abbey under whose shadow she was born, within whose walls she was christened. Well may Dean Stanley call her "the child of Westminster."

Her beautiful monument stands in the Chapel of St. Edmund, near that of her father, and of John of Eltham. She sits "in a curiously wrought osier chair," leaning her head upon her hand, and pointing at the skull, on which her right foot rests, with an expression on her face of great sadness and sweetness. On the richly carved pedestal upon which the figure is placed are engraved these words: "*Dormit, non mortua est*" — she is not dead but sleeping — and below on a scroll we read that to the "Sacred and happy memory of Elizabeth Russell" this monument is dedicated by her afflicted sister Anne.

Sweet Bess Russell's effigy is remarkable in more ways than one. It is the first of all in the Abbey that is seated erect. Hitherto kings, princes,



MONUMENT TO MISS ELIZABETH RUSSELL.

* Visit of Queen Elizabeth to Blackfriars. George Scharf, F. S. A. Archeological Journal. No. 23, p. 131.

† Sidney Papers. Vol. II.

* Wiffen. Vol. II, p. 58.

warriors, noble ladies have been content to lie in profound repose, their hands crossed or folded in prayer. Lord Russell's figure on his splendid monument hard by, shows the first sign of restlessness. He lies on his side, supporting his head on his elbow. At his feet is the son he wished for so greatly—little Francis—who only lived a few months; and graceful figures of his two daughters in mourning robes support the coat of arms above. In a few years the effigies will begin to kneel—as in the case of Sir Francis Vere's noble tomb where four kneeling knights carry his arms on a slab resting upon their shoulders. So intensely alive do they look that Roubillac the famous sculptor was found standing wrapt before them, and when questioned said softly, with his eyes fixed on the fourth knight, "Hush! hush! he will speak presently!" A little later they will sit—then stand,

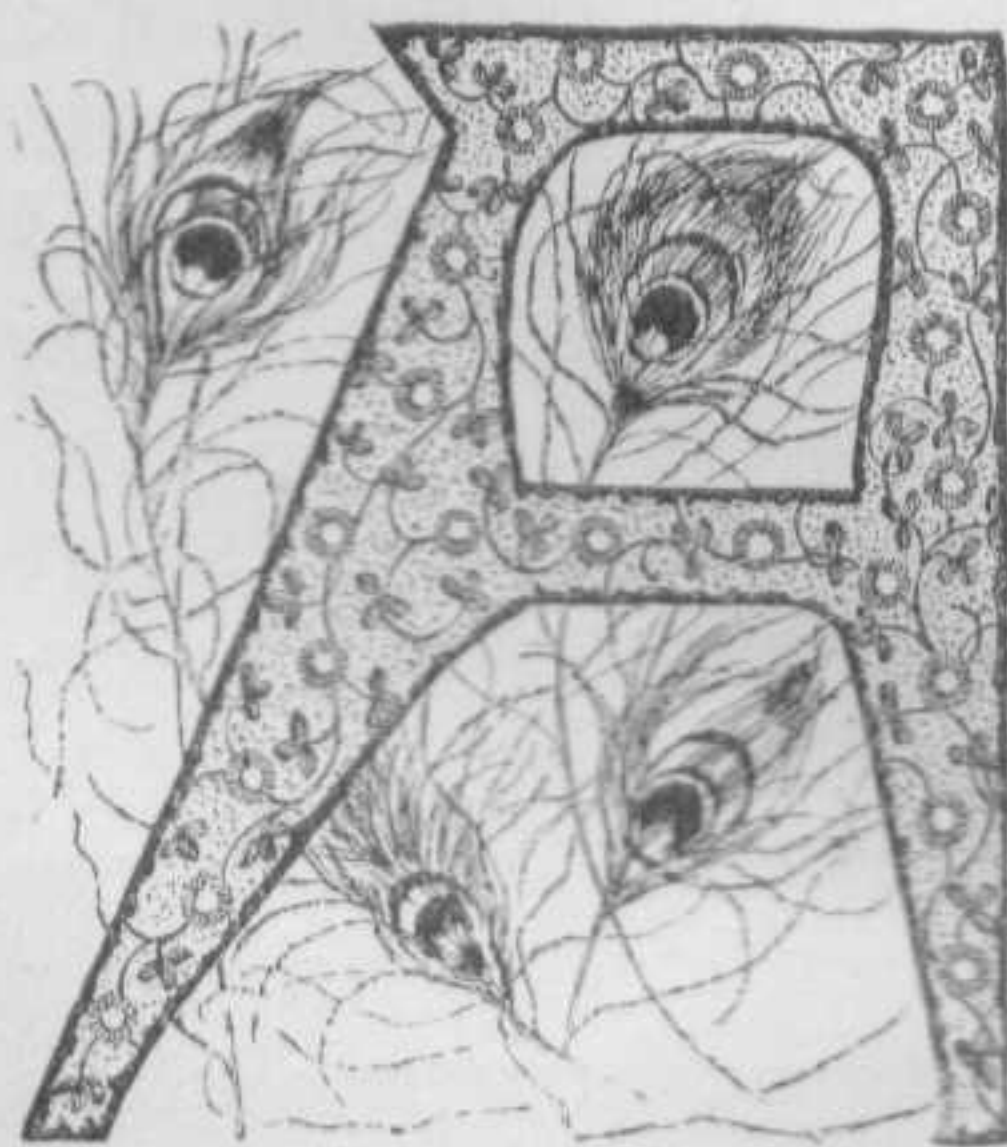
like Walpole's beautiful mother. Then they will gesticulate with the orators, and rise out of the tomb, or the sea, and soar among the clouds in the execrable taste of the last century. All this new movement and life in marble, was ushered in by pretty Elizabeth Russell and her worthy father; so that their monuments mark a very distinct period in the history of the Abbey. The reign, too, of her royal godmother inaugurated the "recognition of the Abbey as a Temple of Fame." Queen Elizabeth loved the Abbey, and the chapels were crowded with the "worthies," who served her so loyally and faithfully. Henceforth not only kings and princes were to be buried in the Church of Henry the Third, but all who were great and wise in action or in thought, statesmen, soldiers, poets, were to rest within the walls of the English Nation's Pantheon.

SOUVENIRS OF MY TIME.

BY MRS. JESSIE BENTON FRÉMONT.

VI.

FAMILY LIFE OF THE WHITE HOUSE.



AMONG my earliest memories of the White House is the impression that I was to keep still and not fidget, or show pain, even if General Jackson twisted his fingers a little too tightly in my curls; he liked my father to bring me when they had their talks, and would keep me

by him, his hand on my head—forgetting me of course in the interest of discussion—so that sometimes his long, bony fingers took an unconscious grip that would make me look at my father, but give no other sign. *He* was sure to praise me afterward if I did not wince, and would presently contrive my being sent off to the nursery for a play with the Donaldson children.

We would find the President in an upper room, where the tall south windows sent in long breadths of sunshine; but his big rocking-chair was always drawn close to the large wood-fire. Wounds and rheumatism went for much in the look of pain fixed on his thin face, but the true instinct of a child felt

the sadness and loneliness that made him so gentle and so pleased to have a bright unconscious affectionate little life near him.

I knew he was very sorry because his wife had died—after they reached Washington—just before he was inaugurated, and I knew they had had a long and happy life together. More than this I did not know, for children were kept young then.

Theirs had been an unusually harmonious life. Like many a woman "with nothing remarkable in her," she had the enviable gift of making life sweet and reposing to all about her—she was eminently a "gentle" woman.

She had lived always among people who knew her and loved her and in the profound retirement of Southern country life. Except the one episode of a cruel husband, from whom she had been divorced young, all her days had been peace and honor. Into this seclusion and peace came the concentrated fire of one of the most savage of our political campaigns, the most venomous part being aimed at Mrs. Jackson herself.

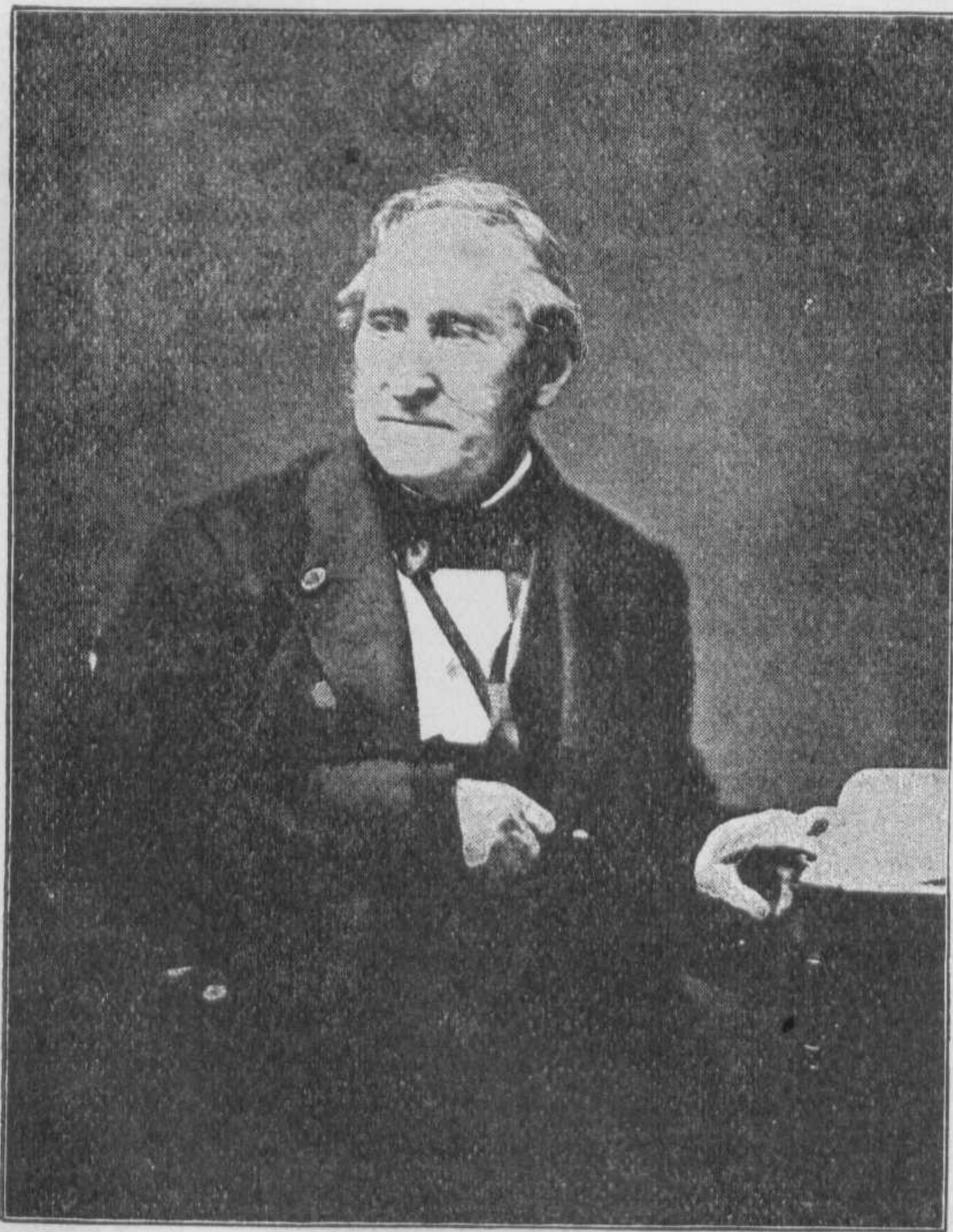
My mother had her prejudices against divorce, but at my father's wish went with him to call on Mrs. Jackson when the General and herself arrived in Washington. The sight of the shrinking, failing woman appealed at once to larger feelings, and my mother went often to see Mrs. Jackson during the brief remainder of her life.

She was glad to die, she said: the General would

miss her, but if she had lived she might be in the way of his new life — “she *could* not share it after those cruel things said against her.”

It was Desdemona's piteous “*Am I that thing!*”

We women will not feel General Jackson the less a good man that in dying he answered his clergyman — yes, that he was ready, that he asked



THOMAS H. BENTON.

forgiveness as he forgave all — “All except those who slandered my Rachel to death.”

So this lonely, high-natured old man gathered about him those his wife loved — her nephew and his wife and their children. There were children's voices in the White House, and birth and death were there, for Mrs. Donaldson died during the second term; a refined, very pretty Tennessee woman who had made the President's house hospitable and homelike.

This was by no means so easy then as now. The house was damply-cold, and the whole expense of warming and lighting it came upon the President. For some time back this has been otherwise provided for. Now also but few expenses fall upon the President. All the present well-ordered service of the house, as well as its warming and lighting, the fine kitchen, gardens, etc., the forage and stable service, are provided for with many added things, which about double the present salary of fifty thousand dollars. But when it was only the twenty-five thousand dollars with every possible demand to be met from that, it was a heavy pull.

Mr. Van Buren had the glass screen put quite across that windy entrance hall, and great wood fires made a struggle against the chill of the house, but it was so badly underdrained that in all long rains the floors of kitchens and cellars were actually under water.

No summer residence was then provided for the President. They stayed on through heat and cold. Mr. Fillmore after the death of President Taylor, was the first to avoid the house where the marshes between it and the river made malaria inevitable; he rented and lived in a pretty place on Georgetown Heights, known as “the English cottage.”

But with all drawbacks, those ladies of the White House made it a succession of friendly dignified and honorable memories for those who knew them there.

There was of course the routine of formal dinners and the many informal ones to more intimate friends. Mr. Van Buren especially gave charming little dinners, always in the more homelike family dining-room. The regular receptions, both day and evening, were for ceremonious visits; but on any evening the family of the President was to be found at home — with their needlework and books and intimate friends — in short, living as other people do.

I only write here of those up to '55. I had a long illness then and afterwards only went back to Washington to see my father from time to time — not staying there again at any time over a few days until in '70.

President Jackson at first had suppers at the general receptions, but this had to be given up. He had them however for his invited receptions of a thousand and more. It was his wish I should come to one of these great supper parties, and I have the beautiful recollection of the whole stately house adorned and ready for the company — (for I was taken early and sent home after a very short stay) — the great wood fires in every room, the immense number of wax-lights softly burning, the stands of camelias and laurestinas banked row upon row, their glossy dark green leaves bringing into full relief their lovely wax-like flowers; after going all through this silent waiting fairyland, we were taken to the state dining-room where was the gorgeous supper-table shaped like a horseshoe, and covered with every good and glittering thing French skill could devise. At either end was a monster salmon in waves of meat jelly.

And then I was sent home with a big supply of good things and flowers — willing to go, for the coming of many people broke the charm of the silent beautiful rooms.

In other places “business is business;” but apart from the morning hours at the Capitol and the official work at the Departments, in Washington pleasure is business — but pleasure is made to serve business too.

So many interests centre there with important men having charge of them — eager naturally to get through and return home to their regular affairs, but from necessity obliged to wait for attention — that the later part of the days and the evenings are but the continuing of often serious work.

"Come home with me and we will talk it over at dinner," is a common answer even now from men in position whose mornings belong to official duties.

In the more leisurely and more simply hospitable earlier time this was a matter of course, and to have others comprehend equally, some few necessary men would be asked to meet them in the same informal manner. Then there were always passing through old friends or their children, or strangers with introductions and only a day or so to stay. Out of this has grown a more easy and graceful habit of impromptu and small dinners than I have met elsewhere. Now that its original plan is carried out, Washington shews for what it is — the drawing-room of the nation. In early spring when everywhere the clear sun shines only on wide clean streets with beautiful bordering avenues of healthy trees, and honeysuckle and roses and many sweet things garland the railings and houses, it is a joy to go about in the fresh fragrance.

We did not have *all* that in the old day, but the germ of all was there. Especially the ever-ready courtesy and hospitality.

This was made easy in one direction by well-ordered and undisturbed households. In our own house although the servants were all freed, or born free, there was no thought of change. It was a comfort never to have strangers about one at home.

And there have always been admirable French cooks in Washington. The foreign ministers all brought them; when they returned — if not sooner — the cooks deserted and set up in business for themselves. These not only went out to prepare fine dinners, but took as pupils young slaves sent by families to be instructed. In that way a working knowledge of good cookery of the best French school became diffused among numbers of the colored people — and for cookery they have natural aptitude. Wormley, whose hotel in Washington was famous and who has lately died leaving over a million of property, owed his success to such training, as well as to his business capacity which turned it to profit.

Mr. Van Buren brought over from London, where he had been our minister, a fine *chef*, and his dinners were as good and delicate as possible; but his was a formal household — none of the large hospitality of General Jackson who held it as "the People's House" and himself as their steward; and still less of the "open-house" of the Tyler regime where there were many young people who kept to their informal, cheery Virginia ways.

Mr. Tyler's youngest daughter was a beautiful girl, and her sister-in-law, Mrs. Robert Tyler, was unusually well qualified by birth and training for her position as presiding over the White House.

Later, Mrs. Tyler having died, the President married a young wife from New York. Her father, Mr. Gardiner of Gardiner's Island, was killed by the explosion of a great gun on the *Princeton* at an entertainment given on board by Commodore Stockton to all the official world of Washington. Two members of the Cabinet were killed as well as Mr. Gardiner, and many were seriously hurt by the fragments of the gun when it burst — among these was my father. The President had just gone below with some ladies.

This tragedy led to his marriage. Miss Gardiner was very handsome and has retained great health and youthfulness of appearance. There was a little laughing at her for driving four horses (finer horses than those of the Russian minister), and because she received seated — her large arm-chair on a slightly raised platform in front of the windows opening to the circular piazza looking on the river. Also three feathers in her hair, and a long-trained purple velvet dress were much com-



ANDREW JACKSON.

mented on by the elders who had seen other Presidents' wives take their state more easily.

With all Presidents' families up to the time, including General Taylor's administration when his sweet and most ladylike daughter, Mrs. Bliss, received for him, it was usual for the lady of the White House to be at home as any of us would be

in our houses; and whether, informally, in the evenings, or on fixed formal occasions, you went there to see the wife or daughter, as might be, of the President, and to her you made your respects.

After the death of President Taylor I was away for many years and I do not like the fashion I found replacing this obviously correct form of reception. The long line of ladies in evening dress who "assist" now, take away the meaning and unity of the idea of making one's respects to the family of the Chief Magistrate.

Mrs. Polk who followed the Tylers, was a very proud, very handsome, very dignified woman who neither needed "assistance" nor would she have liked to share her duties of state. Erect, attentive, quietly gracious, she really did her part well.

She was also an admirable housekeeper, and brought order into the domestic managements, which was a great deal to add to all her other duties. It was a quiet house in her day, no young people, and no children. Following her came Mrs. Pierce—already broken in health and now heart-broken, poor woman. Fate, that so often fills the cup of triumph only to add a drop so bitter that we fain would put it from us, took all the life out of her life immediately after the election of President Pierce; their only child, a boy of twelve, was killed—shockingly mutilated—in a railroad accident, she beside him, seeing it, but powerless to help. Her woe-begone face with its sunken dark eyes, and skin like yellowed ivory, banished all animation in others. She tried but constantly broke down in her efforts to lift, but her life was over in fact from the time of that dreadful shock. Mr. Pierce, too, felt their loss deeply, but his was a more genial nature. He was a most amiable man whose friends remained always attached to him. He often received alone, and many a pleasant gay circle gathered near the fireplace in the oval room and kept him amused.

Years before when he had been in the Senate he was much at our house and now he treated me as the child of old friends; although my father had refused personal intercourse with him from some political offense. Coming back as I did from a long absence both in California and then in Europe, Mr. Pierce propitiated my father by coming at once to call on me. Of course my father received him well in his own house and he made me go to the President's, "for," he said, "it is Pierce's head that is wrong—his heart is always right."

It was indeed as we had occasion soon to feel.

One day as I was with my cousin, Mrs. Preston of Kentucky, at one of her receptions, we were astonished by the apparition in the drawing-room door of her French cook in white cap and apron. He waved his hands towards the street, then gasped, "The house of Senator Benton BURN!" At the same moment a friend rushed in for me and we drove rapidly to my father's.

Thick smoke was filling the air, and a great crowd stood helpless. What little water was to be had was frozen, and the house was doomed. Both houses of Congress had instantly adjourned, and they, and nearly all Washington, gathered in sympathy around my father. He, with one thought in mind, had reached there from the Capitol to find it too late; it was impossible to save his library or the papers on his chief table—among them part of the manuscripts of the second volume of his *Thirty Years in the Senate*. My eldest sister, at the risk of her life, tried to gather these, but fell suffocated and would have been lost but for a young Irish groom who ran into the burning room after her and carried her into the air. A defective flue had quietly undermined the room over the library and its floor fell in on thousands of books and papers, etc.; the smoke was suffocating. First sending her little children into safety, my sister had run down and turned off the gas at the meter—then tried for the manuscript on the library table. But for young Denis she would have died there. Her forethought prevented explosions and loss of life.

But all was lost. Like a proud ship full-freighted, the dear hospitable noble home went down all standing.

My house was but a few doors from the old home and there we were all gathered, more heart-sore than can be told, when the President came in—too moved to be able to speak at first—he could only grasp my father's hands and choke back his emotion. He had known well what our home was—what my mother had been in it—what a friend she had been to him in one turning point in his life.

He told my father he had been off riding when the news met him, and he had hurried to him stopping only at the White House to give the necessary order—"and you will find everything ready for you—the library and the bedroom next it, and you must stay there until you rebuild your house."

That moved my father from his stern endurance, and the old kind relations returned not to be shaken again.

I, from the South, had one feeling about the Union. Mr. Pierce had a differing one. It chanced that I did not meet him again from about the time of that fire, until in the height of our war. I heard some one speaking hardly of him as he left the railway carriage on its coming into a Boston depot—I had not seen him, and it was a chase and a push to catch up with him in the crowded station where, hand in hand, with a thousand home memories crowding on me, I spoke with him for the last time. It is simply impossible to give in this brief way any fair picture of the family life of the Presidents. But it has been such as Americans can be pleased to feel was in keeping with our national feeling of love and honor for home.

THE TEMPERANCE TEACHINGS OF SCIENCE.

VI.—THE ACTION OF ALCOHOL UPON THE LUNGS.

BY PROF. A. B. PALMER, M. D., LL.D.

ALCOHOL, though first carried from the stomach to the liver, making there an early and lasting impression, does not stop there, but is carried on through the right side of the heart to the *lungs*; and its action upon these organs will now be considered.

When the alcohol reaches the lungs it makes an impression upon them; but from causes now to be mentioned its immediate local effect upon them is not very striking. It tends, however, to produce an impression on their delicate structures similar to its first local effect upon the stomach and liver, though in a less marked degree. The small blood-vessels are doubtless dilated and some retardation of the circulation through them results. This, however, is not great when only a moderate quantity is taken, and observations on this point have not been exact and conclusive.

The lungs are exceedingly porous; filled with open tubes and minute cells, or cavities, which are surprisingly numerous, and as the lungs are large bodies filling nearly the whole cavity of the chest, the surface of these tubes and cells is wonderfully large. All the blood in the body comes to the lungs and passes through them, and the alcohol which is gradually absorbed and brought there is mixed with so large a quantity of blood, and is distributed over so large an area, and so soon passes on to the left side of the heart to be sent to all parts of the body, that but a small quantity can at any one time be present in any particular part; hence the slighter primary local effect upon the tissue of those organs than upon many others. Its effects, however, upon the actions which take place here are more important.

The function of the lungs is to change the blood from an impure, dark, venous fluid, unfit for the uses of the system and even poisonous to it, to a pure, vivifying one which is essential to all the activities of the body. This change is effected by the oxygen of the air taken in by the act of breathing, a portion of which unites with certain of the impure matters in the blood, changing their characters, and causing them to pass out of the body by the expelled breath, while another portion of the oxygen unites with the blood-corpuscles and is carried by them to the rest of the body, imparting life and activity to all the parts and tissues.

The principal material in the blood that needs to be removed is carbon. The oxygen unites with this material and produces carbonic acid gas, or,

as chemists now call it, dioxide of carbon. If this, or its base — the carbon — be retained in the blood, very injurious effects result; and this gas passes off with the air which is breathed out. The alcohol which is in the blood is not known to be oxidized or changed in the lungs. Some passes off in vapor with the breath, but most of it passes on with the blood to the left side of the heart to be sent to the rest of the system.

The more complete the oxidation and purification of the blood, the more pure oxygen is united with the blood-corpuscles, the more real vigor is imparted to the system. When one has been long in a close room where the air is exhausted of a considerable portion of its oxygen and is contaminated with carbonic acid, the blood is not properly purified or vivified by the limited oxygen, and one feels stupid, and often faint and dizzy. Going into the pure, open air will produce a most reviving effect as everybody knows. When persons remain a large part of the time in a confined and impure atmosphere, or when from any cause their blood is not properly purified by the free action of the oxygen upon it, weakness and derangements follow, severe diseases of various kinds are likely to occur, and prominent among them is consumption.

Now it is well known that the presence of alcohol in the blood diminishes the action of oxygen on the carbon and other impurities, and prevents the complete purification of the blood and the perfect change of venous into arterial blood. This is proved beyond all doubt by the diminished quantity of carbonic acid given off in the breath of one who has been drinking alcoholics, by the blueness of the surface often noticed, caused by the darker and more venous blood in the vessels; and it is also proved by the greater liability of drinking persons to those diseases which are produced or made worse by the impurity of the blood.

The warmth of the body, called the animal heat, is largely caused by the union of oxygen with carbon and hydrogen in the lungs. A slow kind of combustion or burning takes place there, which, like the more intense burning of wood or coal, causes heat. It is well known by all physiologists that when alcohol is taken less heat is produced, and that this diminution is in proportion to the quantity used. From the narcotic or benumbing effect of the alcohol the person may not *feel* colder, and the surface of the body by expansion of the

vessels of the skin may have more blood in it, and the skin is sometimes temporarily warmer; but the blood throughout the system and in the deeper parts is colder as is shown by the thermometer in the mouth; and it is well known that persons under the influence of liquor perish much sooner when exposed to the cold. No physiologist or intelligent doctor will deny these statements; and their truth is confirmed by the experience of all arctic explorers — by Dr. Kane among others. All this goes to prove that alcohol diminishes combustion, heat-production, and purification in the lungs, and contributes to all the results dependent upon such diminution.

Some years ago an opinion originated in this country (it was not received from any authority abroad) and became quite prevalent even among physicians, that the use of alcoholics, particularly of whiskey, in free quantities, tended to prevent that dreaded disease of the lungs, consumption.

It is difficult to say precisely how this opinion obtained such prevalence, as investigation shows that no substantial ground exists for it. It was probably, however, the result of an extreme reaction from the bleeding and other depressing treatment in this disease, and from the mistaken opinion that alcohol was essentially a tonic and supporting agent. It is most rational to conclude that anything which lowers the vitality and integrity of tissues, as certainly the free use of alcohol is known to do, will tend to the production of a disease which is acknowledged to depend upon depressing influences and diminished life force. This conclusion of reason is sustained by carefully observed facts.

There are no statistics — no recorded observations and comparisons of numbers of cases — which afford the slightest indication that the use of alcohol in any form or quantity prevents consumption. This is not the place for an elaborate discussion of this subject, but some things may be mentioned, which even the younger readers of these chapters can understand.

British soldiers, when in their own islands in time of peace and living in barracks, are well known to be free drinkers. In proof of this the second most frequent severe disease among them is *delirium tremens*, which occurs only in free drinkers. At the same time the *most* frequent serious and fatal disease among them is consumption. It is stated upon the authority of Dr. Lombard in his *Treatise on Medical Climatology*, that forty-six out of every hundred of the deaths in the English army in garrison at home are from consumption. If whiskey prevented the disease in any degree it is readily seen that this would not be the case. It never happened among any large

number of abstaining temperance people, that forty-six per cent., or almost one half have had consumption, or that the deaths of whom were from that disease. The statistics of this army show that alcoholic drinking is a *cause* rather than a prevention of consumption.

As the opinion is still entertained by some (though fortunately not by as many as a few years ago) that whiskey antagonizes and prevents consumption, and it is still taken for that purpose, the opinions of some of the highest medical authorities, men who have given special attention to the disease, may be referred to.

No man is higher authority on this subject than Doctor Lebert, a voluminous writer and original investigator, and who has had an extensive practice in this disease in Germany, France, and Switzerland. He emphatically states and reiterates, that the free use of alcohol is a cause of consumption, and nowhere in his work on the subject does he intimate that in any quantity it antagonizes or prevents the disease.

In England no names are of higher authority on this subject than those of Doctors Williams, Chambers and Peacock. None of them intimate that alcohol prevents consumption, but all state that its free use is among the prominent causes of the disease, particularly of the variety called fibroid consumption. In London there is a large Institution called the "Brompton Hospital for Consumptives," where large numbers of these cases are treated, and the disease and all its relations, its causes, treatment and the changes which occur from it in the lungs, are carefully studied. One of the physicians there, Dr. R. E. Thompson, in a work on the examination of such cases, declares that "alcoholic intemperance has a very distinct effect upon the condition not only of the body generally, but also especially upon the lungs." He speaks of a particular form of the disease in free beer-drinkers, and another, the fibroid form, in spirit-drinkers, and speaks of these forms of the affection as produced by these indulgences. Indeed the fibroid form of consumption is by all medical writers allowed to be most frequently produced by the use of alcohol. Other authorities of an equally high character might be referred to. My own opinion, the result of long experience in private and hospital practice, is that alcohol has no claim to be regarded as antagonizing consumption, or as prevention of the disease — none whatever — but that it is the chief cause of what is called Fibroid Phthisis. I have seen many made drunkards, some in whom I had the greatest friendly and fraternal interest; but I have never seen a case where I had evidence that whiskey prevented or cured the disease.

BOYS' HEROES.

BY EDWARD E. HALE.

VI.

RICHARD THE LION HEARTED.

I SUPPOSE that the romances about King Arthur were first written after knight-errantry had died out. I think people remembered the theory of Chivalry in that form — and that the detail of it, as it appeared in fact — was rather blurred by time.

But now that we come, in our list of heroes, to Richard the Lion Hearted, we come into the domain of real history. I think we may say that this was at the very prime of the time of tournaments and all the rest of those brilliant shows which make the ages of real chivalry so interesting. I think that the reason that boys of our time and country are so much interested in Richard is that he is so well described in *Ivanhoe* and in the *Talisman*. Then we are all interested in the Crusades. I think we all feel that the crusade of Richard ought to have succeeded, and would have succeeded, had it been led by one man, and not by a mass-meeting or caucus — which is to say, not led at all.

For my own part, I should like to say that I do not myself think that the time for Crusades is over. Mr. Gladstone is said to have said once, that he would like to see the Sultan sent beyond the Bosphorus, "bag and baggage." The solution of the Oriental question, which thus disposes of the Turkish government, is called familiarly the "bag and baggage" policy. I think that if I had the management of affairs for a few months, I would take the Sultan and settle him in a nice valley of Asia Minor with five hundred sheep, and a brand-new shepherd's crook. I would tell him that he was in a better condition than his ancestors were, and that he might now look out for himself. I would give similar crooks to the principal officers of his court, and let each of them have one hundred sheep, and a smaller valley. Then I would provide a decent government for Constantinople and the Ottoman Empire.

In the Crusade of the year 1190 and 1191, Richard and the Western princes had in mind a policy not unlike this. Under the inspiration of Peter the Hermit, the first Crusade had driven the Turkish hordes out from Jerusalem, in the year 1099. I was always much obliged to them for selecting a date which is so easy to remember. These vagabonds had only been there thirty-four years. They were genuine savages, as ignorant of the Koran as they were of the Bible. They had no more rights there

than a gang of Apache Indians would have in Washington to-day, if in the reign of Frank Pierce they had found their way into Washington and had ruled in riot there ever since. Before their time, for four hundred years, the country had been under Mussulman sway, but it was the sway of Arabians, or Egyptians, who had about as much civilization as anybody in their times. These vagabond Turks had none; nor have their successors had more than a varnish of any up to this hour.

The first Crusaders drove them out of Jerusalem, "bag and baggage," as Mr. Gladstone says. They established in their place Godfrey of Boulogne, as king of Jerusalem, and there he and his successors reigned for nearly a hundred years. A queer time they had of it, and a hard one. For if there was anything which they did not understand, it was dealing with such people as they had to do with there.

At the end of nearly a hundred years, there was a very accomplished Mussulman prince named Saladin, who had succeeded in possessing himself of Egypt. He is the Saladin whom you read of in *The Talisman*. He made it his business to sweep out the Crusaders "bag and baggage" in his turn. And in a terrible battle which he fought on the fourth of July, 1187, he destroyed the army of the king of Jerusalem, and took him prisoner. He killed the bishop who bore the Holy Cross or what they thought so. And many of the Christian soldiers thought that this terrible defeat was due to the treachery of that same Grand Master of the Templars, of whom you read in *Ivanhoe*.

This critical battle of Tiberias, which established for seven hundred years Moslem power in the holy land, ended in a conflict on that level plain, in the Mount of the Beatitudes — where the Saviour is supposed to have pronounced the blessing on the Peacemakers. Strange to say it is the crater of an extinct volcano.*

The stragglers from the Christian kingdom of Jerusalem came back to Europe. To redeem the city again, the third Crusade was set on foot with the support, more or less cordial, of all the great Western princes. In this Crusade our King Richard was the first king to engage publicly.

Here is the account of his departure, given by Richard of Devizes:

The time of commencing his journey pressed hard upon King Richard, as he, who had been first of all the princes on

* See Mr. Field's "Holy Hills."

this side the Alps in taking up the cross, was unwilling to be last in setting out. A king worthy of the name of king, who, in the first year of his reign, left the kingdom of England for Christ, scarcely otherwise than if he had departed never to return. So great was the devotion of the man, so hastily, so quickly, and so speedily did he run, yea fly, to avenge the wrongs of Christ.

He went through France to Marseilles and sailed from that port towards Syria. The French king took his army by land, because he was apt to be seasick. Although Richard started from England as early as the twelfth of December, 1189, he did not arrive at Palestine until the day before Whit Sunday, 1191, having been more than a year on the way. This long delay was really due to the customs of chivalry. For the king could not resist the temptation of taking a personal part in every encounter which turned up; and indeed, through the whole expedition, he bore himself more as a knight-errant seeking for glory, than as the far-seeing leader of a great movement. Thus he stopped on the way to settle a claim he had on the king of Sicily for the dowry of Richard's sister. Among other things, he found time to be married with great pomp to Berengaria, Princess of Navarre, one of the few ladies who accompanied the expedition. I think the marriage had been agreed upon before they started. He had a little war with some banditti, whom the chroniclers call Griffones, in Sicily, and seems to have beaten them thoroughly. He took possession of the island of Cyprus, after some hard fighting. Under his successor in the rule of England, Mr. Benjamin D'Israeli, Cyprus has fallen under English rule again. Even after he had left Cyprus he fell in with a large Saracen ship, and instead of keeping on toward Palestine he boldly attacked her.

Though our galley-men rowed repeatedly round the ship, to scrutinize the vessel, they could find no point of attack; it appeared so solid and so compact, and of such strong materials, and it was defended by a guard of warriors who kept throwing darts at them. Our men, therefore, relished not the darts, nor the great height of the ship, for it was enough to strive against a foe on equal ground, whereas a dart thrown from above always tells upon those below, since its iron point falls downward.

Hence their ardor relaxed, but the spirit of the king increased, and he exclaimed aloud, "Will you allow the ship to get away untouched and uninjured? Shame upon you! are you grown cowards from sloth, after so many triumphs? The whole world knows you are engaged in the service of the Cross, and you will have to undergo the severest punishment, if you permit an enemy to escape while he lives, and is thrown in your way."

Our men, therefore, making a virtue of necessity, plunged eagerly into the water under the ship's side, and bound the rudder with ropes to turn and retard its progress, and some, taking hold of the cables, leapt on board the ship. The Turks receiving them manfully, cut them to pieces as they came on board, and lopping off the head of this one, and the hands of that, and the arms of another, cast their bodies into the sea. * * *

But they, after a mighty struggle, drove the Turks back as far as the prow of the ship, while from the interior others rushed upon our men in a body, preparing to die bravely or repel the foe. They were the choice youth of the Turks,

fitted for war, and suitably armed. The battle lasted a long time, and many fell on both sides; but at last, the Turks, pressing boldly on our men, drove them back, though they resisted with all their might, and forced them from the ship. * * *

The king seeing the dangers his men were in, and that, while the ship was uninjured, it would not be easy to take the Turks with the arms and provisions therein, commanded that each of the galleys should attack the ship with its spur—i. e. the iron beak. Then the galleys, drawing back, were borne by rapid strokes of the oar against the ship's sides, to pierce them—and thus the vessel was instantly broken, and becoming pervious to the waves, began to sink. When the Turks saw it, they leaped into the sea to die, and our men killed some of them and drowned the rest. The king kept thirty-five alive, namely the admiral and men who were skilled in making machines. But the rest perished, the arms were abandoned and the serpents sunk and scattered about by the waves of the sea. If that ship had arrived safely at the harbor of Acre, the Christians would never have taken the city. But by the care of God, it was converted into the destruction of the infidel, and the aid of the Christians, who hoped in him, by means of King Richard, who by his help, prospered in war.

I make this long quotation from Geoffrey of Vinsauf, who accompanied Richard, because I think any intelligent boy or girl will like to read these stories,* as they are told by that chronicler.

To give poor Richard his due, he had terrible malarial attacks all through this expedition. The King of France was as unfortunate, and finally succumbed to them. Richard scarcely landed at Acre, where the Crusaders were besieging the Saracens, before he fell sick. This is the period which readers of *The Talisman* will remember. The besieging army was itself closely watched and almost besieged by Saladin, on the hills behind the town. The princes who had arrived before Richard, were very indignant at his long delay on the route, and certainly they had some reason. But, when he and his men were landed, the attack on the city took more life. Though sick himself, he joined in it, while he directed it. Special feats of his are recorded by the chroniclers. At last, "on the Friday after the translation of St. Benedict," the Turks gave hostages for the delivery of the Holy Cross, and of their captives, and marched out of the city. The King of France and the King of England entered it, "and divided everything equally between them."

After such a success, Saladin may well have considered his cause well nigh lost; and after he lost the battle of Jaffa, he might, even with honor, have given it up. But the weakness of the whole Crusade was in the division of its chiefs. The King of France was dissatisfied and went home, leaving, however, ten thousand men to fight in Palestine.

The battle of Jaffa, so called, is a better illustration than you are apt to find in history of the hard hand-to-hand fighting. It is described, even to tediousness in the romances, but not very fre-

* The book may be found, with Richard of Devizes and Joinville's *Memoirs of Louis the Ninth*, in a book called *Chronicles of the Crusades*, which is in most public libraries, and may be bought for \$1.25.

quent in real warfare. Here is a specimen of Vinsauf's bloody narrative :

The commander of the Turks was an admiral, by name Tekedmus, a kinsman of the sultan. He was a most cruel persecutor, and a persevering enemy of the Christians. He had under his command seven hundred chosen Turks of great valor, of the household troops of Saladin, each of whose companies bore a yellow banner with pennons of a different color. These men, coming at full charge, attacked our men who were turning off from them towards the standard, cutting at them, and piercing them severely, so that even the firmness of our chiefs wavered under the weight of the pressure. Yet our men remained immovable, compelled to repel force by force, and the conflict grew thicker, the blows were redoubled, and the battle raged fiercer than before. The one side labored to crush, and the other to repel. Both exerted their strength, and although our men were by far the fewest in numbers, they made havoc of great multitudes of the enemy. In truth the Turks were furious in the assault and greatly distressed our men, whose blood poured forth in a stream beneath their blows. On perceiving them to reel and give way, William de Barris, a renowned knight, breaking through the ranks, charged the Turks with his men, and such was the vigor of the onset that some fell by the edge of the sword, and others only saved themselves by rapid flight. The King mounted on a bay Cyprian steed, which had not its match, bounded forward in the direction of the mountains, and scattered those he met on all sides: for the enemy fled from his sword and gave way, while helmets tottered beneath it, and sparks flew forth from its strokes.

And so on, and so on, for page after page. Any one but Richard would have had his fill of fighting in these fifteen months. He defeated Saladin in battle again and again. But he did not capture

Jerusalem. Fever after fever prostrated his strength and at last he consented to a truce. Saladin insisted on the destruction of the fortifications of Ascalon. But he gave to the pilgrims free access to Jerusalem. This was, in fact, all that they asked before the Crusades began.

Poor Richard, you know, was taken prisoner on his way home, and his ransom was a heavy one. Nor did things fare well with him in England. Fighting to the last, he was killed in his forty-second year.

For many and many a year the Christian powers, who represent the States which united in the Crusades, have had the beggar Sultan in their keeping. He is the "sick man," whom they condescend to keep alive. He is the nominal lord of Jerusalem now. But he could not hold it an hour, if England and Germany and France and Austria and Russia did not prefer that he should.

Possibly his star may pale some day. At the end of some Egyptian war, some Garnet Wolseley will be bidden to march two days inland from Joppa and take possession of Jerusalem. What Richard and Philip and Henry and the rest fought for, for years, would be done, then, in forty-eight hours, by three or four English regiments. In some such way it may be that some of our young readers will see

THE LAST CRUSADE.

THE MAKING OF PICTURES.

BY SARAH W. WHITMAN.

VI.

ETCHING.

WE find ourselves still with one more great process to consider in the making of pictures which may be classed with the Fine Arts. For in etching, as in other branches of the graphic arts, opportunity is given for the doing of spontaneous, original work by the artist. Indeed, it provides a method which in some respects is unrivalled for the expression of purely artistic feeling. Let us see how this is; and let us ask first what etching consists in.

Nowadays, fortunately, there is a revival of this beautiful art, which has long been greatly neglected. Rembrandt, who made masterpieces in etching, carried it to a marvellous perfection; but it is doubtful if since his time any one has rivalled

him, till within the present century the names of Méryon and a few others blaze out and add a new lustre to the art. During periods of disuse, or neglect, etching has been confused in people's minds with various forms of mechanical work, or with processes not at all kindred to it. Even cultivated persons have fancied that pen-and-ink drawing was one and the same thing; and many are quite ignorant of the distinctions in process between etching and engraving, or mezzotint.

Now etching is distinguished from all other methods for producing a surface from which pictures may be printed, in *this*—that the lines are obtained by corrosion; or, in more popular phrase, by the "biting" with acid into the metal on which the picture is first drawn. In steel engraving, these lines are made by a tool called the burin; in wood engraving by another tool of similar nature and so on; but in etching proper, all lines are

bitten out by the acid used. Perhaps it will not be seen at once just how it is that this makes any serious difference in the result; but I think when I have described all that is involved in the making of etchings, you will see for yourselves how unique and charming they are. I think also that although this description involves much technicality regarding the necessary processes, this very technicality is interesting in itself, as well as instructive, to all who wish to become skilful judges and lovers of this art. So I will begin at the beginning and tell you as briefly as I can how etchings are made.

The "plates," as they are called, are made of different metals; but among them copper is for almost every reason so much the best, that it is hardly worth while to speak of others here—except, perhaps, in passing one may say that for certain effects which require broad, forcible masses, and heavy lines of black, zinc has many fine properties.

Copper plates may be had of any size; they are rolled out very thin, and carefully polished, before the artist can use them. Then he begins his work by "preparing the plate." Remember that the lines of the etching are to be bitten out by acid, not *dug* out by a tool held in the hand; and also that copper is so easily affected by nitric acid that if you put a copper coin in a bottle of it, it would soon be quite eaten up. The point to achieve, then, is to compel this formidable enemy to copper to bite in the right place, and make the lines where the artist wishes to have them. For this purpose, the plate must first be covered with something to protect the copper from the acid; and to do this the artist grasps the plate by one corner with a pair of stout pincers, and holds it over the flame of a lamp till the surface is warm; then, taking a ball made of a sort of asphalt which is covered with thin silk, he rubs it gently over the warmed surface, till it is completely covered with a delicate brown varnish, caused by the melted asphalt. This varnish, however, is shiny and transparent, and so would make a confusing surface to draw upon. It must, therefore, be rendered dull and opaque; and this is accomplished by turning the plate, while still warm, and holding it upside down over the smoke of tapers, or a piece of twisted paper—passing the smoking torch slowly forward and back till the varnish has become one uniform brown tint, caused by the union of the asphalt and the smoke. After this, the back of the plate is also carefully covered with the protecting gum, and the plate is then ready for use.

Now this asphalt, while it is so delicate that it can be removed with the lightest touch of a tool, is perfectly impregnable to nitric acid; and the copper is safe from attack wherever the thinnest coat of asphalt covers it. On the plate so prepared, the artist makes his drawing. He draws

with a steel tool which may be long or short, according to the artist's liking, but which had best have for convenience a point at each end—one fine, the other extremely fine. This last point will be used in making lines which require the very greatest delicacy; for the rest of the drawing the first point will be sufficient; for it is one of the distinguishing elements in etching that the drawing is done with *uniform* lines—leaving it (as will be seen later), to the acid, to make these lines as various as shall be needed.

You will now see how easily a sketch may be made freely from nature with this simple equipment; an artist needs only a few prepared plates, his tool—which is called in etching terms his needle—and a little mirror, to go forth and work freely from any object. The mirror is of use where it will make a difference if the printed picture is *reversed*; as of course the print is always the reverse of the drawing as it is put on the plate, and in many cases this would be undesirable. This mirror is held in the hand, or attached to the sketching box, so that one sees the object reflected there, and draws from it accordingly.

In drawing lines with the needle, care is to be taken not to scratch the surface of the metal; all that is to be done with the tool is to remove the coating of asphalt; and when this is done there is seen upon the plate a drawing in fine shining lines, caused by the appearance of the bright copper wherever the varnish is scraped off by the passage of the needle.

I must ask you to note here the reason why etching is so finely adapted to artistic linear drawing. It is because of the matchless freedom with which the needle follows the slightest direction of the artist's hand. There is actually no effort required to remove the varnish; consequently the utmost variety in the use of lines can be had, giving room for great originality of treatment.

So much for the *drawing* of an etching. Next comes the process with acid. This need not be done at once, as the plate can be put carefully away, and kept without damage; but, on the other hand, the artist will wish to finish the work if possible while the effect he seeks to produce is freshly in his mind.

For biting the plate, it is necessary to have a shallow glass dish, large enough to hold it. Into this dish is poured a weak solution of nitric acid. (It is well to protect one's hands with rubber gloves, as the acid bites and stains fingers also.) The plate is laid in the dish so that it is completely covered by the liquid acid; and instantly the work of biting begins. On all the lines of exposed copper there appear tiny bubbles, which give sign of the quick attack made by chemical action; and if one listens closely, the very smallest sound can be heard, like that of minute bells. Now comes the time when judgment and experi-

ence and happy guesses are all necessary ; for it is now that one must decide as to the size of the most delicate lines that are to be made in the picture. Probably these lines will be in the sky ; and as this exquisite process goes on, one watches with greatest care the effect upon these especial places. With a camel's hair brush the little bubbles are constantly to be pushed off the lines, so that the artist may see how the work is going on. And when he thinks that the biting has gone far enough *for the finest lines*, he takes out the plate and carefully rinses it with water. Next, with a small brush, and what is called "stopping out varnish," he covers, or "stops out," all the lines which are bitten enough ; and then, when the varnish is quite dry puts the plate in the acid again. Here you have the clue to the whole process. As the size and strength of each line depends upon the length of time for which it is exposed to the action of the acid, you will see that by repeating this biting and stopping out, the lines may be varied almost indefinitely ; indeed, in any large or elaborate work, the number of successive bitings is often as large as fifty or sixty, while in simpler plate it is, of course, much less.

You will easily see how difficult it is to judge with perfect accuracy of the success of an etching without printing from it ; and for this purpose the varnish must of course be removed — a thing done by washing it with turpentine. But it is possible, after taking a print, if there are still lines to be deepened, to re-cover the plate, by means of a valuable implement called the roller, in such a way that the lines are left open and all between them covered by a new varnish. Further exposure to the acid may then be made ; lines strengthened, and so on. Prints made after the first biting are called "first state ;" and there are often second and third states of an etching.

We have now seen how the copper plate is made ready for the final act, which is that of printing. And here again the artist has much to do with the process, as the printing of etchings is of great importance in the production of the finished work, and by no means to be done by the rule of thumb. Many of the most distinguished of modern etchers do all their own printing ; and when this is done, as by Whistler and others, the prints have a charm and beauty which can only be obtained by the artist's hand.

The most direct way of printing is by filling the

lines with ink, wiping the rest of the plate quite clean, and getting a simple impression of the lines. But beside this, there are methods of wiping the plate which give a more varied and a richer effect. With the hand or with a soft cloth, the copper may be so wiped that slight traces of ink are left, and these give a soft tinge to the paper, and enhance the mellow qualities which etchings possess.

So far we have considered the processes by which, technically, etchings are produced. What shall we say regarding their qualities ? What is the result achieved by the processes described ? In the first place, the line which is bitten out by the acid is not like the line obtained by any tool, nor which *can* be obtained, for this reason ; that in producing it the acid burrows under the edge of the surface, as well as down into the depths of the metal, and the line so formed is capable of holding a body of ink and printing with a richness quite unlike anything else. If you pass your finger over an etching, you will find the printing stands out thickly raised from the paper, such a volume of ink has been deposited by the etched line. This is the power of the corrosion. But beyond this, in its worth to art, is the advantage which lies in the fact that in making his drawing the artist is so free to express by spontaneous and ever new combinations of line what he sees and feels. If you study etchings carefully, you will find your chief pleasure in seeing the ingenious and subtle measures by which effects are obtained. For we must remember that *the line*, as such, does not exist in nature ; it is a means invented by man for giving by purely artificial methods the truths of nature — and as the practice of these methods involves minute and varied handling, we are brought, as may be seen, into more intimate relation with the artist's processes than perhaps in any other form of art. One can follow the point of the needle, as it were, and feel how close it lies to the directing mind as well as to the guiding hand, and one will have that curious mixture of surprise and pleasure at seeing the unlooked-for lines which convey to our mind the record of some fact, or the expression of some emotion.

A true appreciation of etchings must surely indicate a refined and sensitive feeling for art ; and among the signs of a rapid growth of the art-impulse in America, comes happily a deepening interest in the reserved, subtle and noble art of etching.

SEARCH-QUESTIONS IN AMERICAN LITERATURE.

BY OSCAR FAY ADAMS.

VI.

MISCELLANEOUS QUESTIONS.

101. What was the first American novel, and when was it published?

102. What was the first English book printed in America?

103. Name the authors of the following poems: "Sandalphon," "Zophiel," "My Country, 'tis of thee," and "Columbia"?

104. What was *The Federalist*? who were its authors? where was it published, and what was its object?

105. What was the first *standard* book written by a New England woman?

106. When was the *North American Review* established?

107. When did John Eliot's Indian Bible appear?

108. Who was the author of the first volume of poems written in New England?

109. Mention the authorship of the following songs and lyrics: "Old Folks at Home," "Ben Bolt," "Old Grimes," "My Life is Like the Summer Rose" and "The Battle Hymn of the Republic"?

110. When was *Uncle Tom's Cabin* first published?

111. When was the first American newspaper published? when the second?

112. State the authorship of the following poems: "Nothing to Wear," and "The Golden Milestone"?

113. Of how many novels was Cooper the author?

114. What four authors are sometimes styled "The Knickerbocker writers"?

115. Who are the authors of these standard romances: *Zenobia*, *Gunnar* and *Margaret*?

116. What was the first drama written in America, and who was its author?

117. What was the title of the first American magazine, and when was it issued?

118. Who were the authors of the satires "The Simple Cobbler of Agawam" and "MacFingal"?

119. Who said "The Father of Waters now flows unvexed to the sea"?

120. What noted short story ends thus:

To and fro, soundless and purposeless, swung the long pendulum. And, ah! what was that thing I had become? I had done with time. Not for me the hands moved on their recurrent circle any more. I must have died at ten minutes past one.

ANSWERS TO SEARCH-QUESTIONS IN JANUARY READINGS.

61. Donald Grant Mitchell.

62. Mrs. Isabella Alden.

63. Rebecca S. Clarke.

64. Mrs. Alice [Bradley] Haven. Her name was originally Emily Bradley, and her first articles were signed "Alice E. Lee"; but at the request of her first husband, Joseph C. Neal, she retained the name of Alice as her own. Mr. Neal died seven months after their marriage, and in 1853 she became Mrs. Haven.

65. Julia Constance Fletcher.

66. Mrs. H. M. Lothrop.

67. Edward Everett Hale.

68. Mrs. Emily [Chubbuck] Judson. (2) Henry Wm. Herbert. (3) Daniel Wise. (4) Mrs. Sarah Payson [Willis] Parton. (5) Mrs. Jennie C. Croly. (6) Samuel Griswold Goodrich. (7) Josiah Gilbert Holland.

69. Susan Warner.

70. Mrs. Elizabeth [Akers] Allen.

71. Martha Finley.

72. Mrs. Mary Virginia [Hawes] Terhune.

73. Mary Abigail Dodge. Her pseudonym is made up from the third syllable of Abigail and Hamilton, the name of her native place.

74. Mrs. Laura C. [Redden] Searing.

75. David Hunter Strother.

76. David Ross Locke.

77. Wm. S. Robinson.

78. Benjamin P. Shillaber.

79. Mrs. Estelle Anna [Robinson] Lewis. "Sappho" is her most famous book.

80. Mrs. Sara J. Lippincott.

C. Y. F. R. U.

REV. J. H. VINCENT, D. D., AND REV. J. L. HURLBUT, D. D., SUPERINTENDENTS.
MISS K. F. KIMBALL, PLAINFIELD, N. J., SECRETARY.

[This department, while not less interesting to the general reader, is especially set apart for the CHAUTAUQUA YOUNG FOLKS' READING UNION, the young people's branch of the Chautauqua movement for popular home education. It supplies a course of reading for young people which is intended to give them the most valuable knowledge in the most interesting manner. The Required Readings are issued simultaneously in WIDE AWAKE and the CHAUTAUQUA YOUNG FOLKS' JOURNAL; a few added books form the Supplementary Readings. The Union is under the direction of REV. J. H. VINCENT, D. D., and REV. J. L. HURLBUT, D. D., as Superintendents, in connection with the Editors of the magazines mentioned above. Any person, young or old, may become a member of the Union by sending his name and *ten cents* in postage stamps to the Secretary, MISS KATE F. KIMBALL, Plainfield, N. J., to whom inquiries for further information may be addressed.]

THERE was a boy in a local C. Y. F. R. U. who one day sent a note to the President, resigning his membership in the club. He was not dissatisfied with the management, nor at odds with his fellow-members, but *he had no time for the readings!* Strange, but true. To be sure, his studies in school were not arduous, and they did not require more than an hour outside of school hours. There were several hours' in each day left to be accounted for, after deducting from twenty-four the number of hours occupied in sleeping, in dressing and undressing, in meals, in study, and in exercise. And yet this boy could not find ten minutes a day for the readings of the C. Y. F. R. U. and especially for the two hours' meeting of the club once a fortnight. One day the President of the club met this over-worked boy, with a pair of roller-skates in his hand, wending his way toward a huge unpainted building. That told the secret. He was spending a couple of hours every day at the Skating Rink. It cost him each afternoon or evening about fifty cents, inclusive of a pop-corn ball or two for the girls whom he met at the Rink. Well, what did he get for it? A pair of aching limbs, an occasional bump on the back of his head, a sharp rebuke from his teacher for not being prepared upon his lessons, and a general irritability from strained muscles and late hours, which made him disagreeable to everybody in the house. If that boy will just look forward ten years, and try to put himself now in the views and estimates he will have then, he will see that as a preparation for life, as a force in character, and as genuine recreation, he could better afford to dispense with the Rink for a couple of afternoons each week, than with the C. Y. F. R. U. altogether.

A PROGRAMME for a C. Y. F. R. U. meeting on Greek History (Chapters XXX. to XXXIV.) might include the following subjects, which should be assigned to different members. 1. The Last Conquest of Alexander. 2. The Death of Alexander. 3. The Division of Alexander's Empire. 4. Phocion and his Times. 5. Pyrrhus and his Times. 6. The Achaean League.

WOULD it not be a good plan to have some *tableaux* of events in the Readings at a Local Union? For instance, the baptism of Bess Russell in Westminster Abbey; the death of Alexander; Phocion drinking the hemlock, etc., might be chosen as subjects. A committee might prepare the pro-

gramme of tableaux, and the C. Y. F. R. U.'s present might exercise their powers in guessing, or test their knowledge of the Readings, by giving the name of each tableau after it has been exhibited.

AT some time during the month of March, the C. Y. F. R. U. meeting might be given to "The Child of Westminster Abbey," with the following programme of subjects. 1. The Story of Elizabeth Russell. 2. The Reign of Queen Elizabeth. 3. The Great Men of the Elizabethan Age. 3. Kenilworth Castle. [With this might be read a selection from Sir Walter Scott's, "Kenilworth."] 4. Sir Philip Sidney. Show if possible portraits of Queen Elizabeth, Shakespeare, the Earl of Leicester, and other notable persons of that time.

WE have received an interesting letter from the Secretary of the C. Y. F. R. U. at Attleboro, Mass. This union has nearly thirty members. Their work is arranged by two committees, appointed for each meeting to prepare a programme, one the literary part, the other something entertaining. Sometimes they play the game of "characters" with the personages in the Readings as subjects. One chooses a character, and the other asks questions about him, which he must answer, with "yes," "no," or "I don't know," until somebody can guess the name. At the opening of the Circle, after a C. Y. F. R. U. song, the roll is called, and each member responds with a quotation from some author previously specified.

THERE are many local clubs of the C. Y. F. R. U. which could obtain for their meetings the use of stereoscopic or other pictures which would illustrate some of the subjects of the month's readings. In nearly every village can be found some person who has visited Washington and brought home pictures of the Capitol, the White House, and other public buildings; and some one who has a number of pictures representing Westminster Abbey and its surroundings. These might be loaned to the club for a meeting. Some circles in and near the large cities might obtain magic lantern slides on these subjects, and give a "stereopticon entertainment," the descriptions to be given by members of the circle in town, to whom subjects shall have been assigned in advance.

Answers to Search-Questions should be addressed to Editors of WIDE AWAKE, 32 Franklin Street, Boston, Mass., with the words, "Search-Questions," in corner of envelope.

For titles of books to be given as prizes see the January number.

In reply to many inquiries: *We will receive answers to Search-Questions up to the date of the appearances of the printed answers, and will publish the names of senders, and allow prizes for correct complete lists.*

Complete lists of correct answers to the January Search-Questions have been received as follows:

M. A. Lanman, Bennie E. Carney, Albert C. Carney, Bernard Carney, Margaret W. Leighton, Frank C. Hyde, Charlotte D. Iles, L. M. Alexander, C. Y. F. R. U. of Bridgeport, Conn. (Annie L. Capers, Sec.), Winifred Parker, Earl B. Wood, Kate E. Lawrence, George M. Kelly, Carrie M. Ashton, Nellie Colfax Smith, Mary F. Duren, Effie C. Verney, Justine Ausman, Star C. Y. F. R. U. of Providence, R. I. (Nellie F. Alexander, Sec.), Sunshine C. Y. F. R. U. of Dorchester, Mass. (Annie W. Smith, Sec.), Lillie A. Alden, Alice May Morgan, Hurlbut C. Y. F. R. U. of Framingham, Mass. (F. B. Daniels, Sec.), Nellie Ward, "You and I Club" of C. Y. F. R. U. Providence, R. I. (Bessie W. Olney, Sec.), Winifred T. Denison, Willis H. Davis, Henry Dow, Rena Cartwright, Ella M. Booth, Eustis Towle, Mary L. Clark.

Partial lists, and lists not wholly correct, have been received from the following:

Lakeside C. Y. F. R. U. Club of Westfield, N. Y. (Alice E. Holt, Sec.), The Consideration Club of Austin, Ill. (H. A. King, Sec.), Edward S. Smith, Saidee Flemming, Isabel Flemming, Susie Currant, Eleanor Lovell, George E. Metcalf, John H. Pierce, Lou Moore, Katie E. Bushnell, Georgie E. Bushnell, Harlan C. Pearson, Edith L. Johnson, Lottie W. Chase, Edith Peck of Pioneer C. Y. F. R. U. Waterbury, Conn., S. E. Whittaker, Frances M. L. Heaton, Albert A. Faulkner, Maggie V. Meeker, Helen W. Allen, C. Y. F. R. U. of Lawrence, Kas. (Katie L. Riggs, Sec.), Effie M. Thorndike, Charles G. Norton, Burnie Olds, G. W. Bryant, L. A. Puffer, C. Y. F. R. U. of Lawrence, Kan. (W. Churchill, Sec.), Bessie Montgomery, Melvin Yoran.

Several authors having written under the *nom de plume* of "Stella," all members who have sent lists correct save in the answer to question 79, are credited with complete lists.

In addition to those already credited, correct lists of answers to the Search-Questions in December Readings have been received from the Star Circle of Providence, R. I. (Nellie F. Alexander, Sec.), Hurlbut Circle of South Framingham Mass. (F. B. Daniels, Sec.).

Additional partial lists of answers to the December Search-Questions have been received as follows:

Francis Sterrett, Charles G. Norton, Bessie Montgomery, Eustis Towle, L. M. Alexander, C. Y. F. R. U. of Lawrence, Kansas (Whitman Churchill, Sec.), Chaut. Gleaners of Lynn, Mass. (D. A. Sanborn, Sec.), K. L. Riggs, E. M. Booth.

The letters received from our members continue to witness to the great interest felt in the Search-Question Entertainment, and to the capability for thorough and persistent work that lies latent in our young folks, and to the acquaintance they are making with books of standard literature, big Encyclopædias, and the resources of public libraries. One

circle spent three weeks seeking the answer to one question, and succeeded. A Western girl writes that one answer she obtained by sending to the Chicago Public Library, for others she applied to the Librarian of Congress. The "Notes and Queries" columns of the daily papers are also called into service by our young Chautauquans. One plucky member, "aged 12," writes thus of his Search-Question labors: "From the time I first got my magazine to this time, I have been looking for the Search-Questions. I have looked through 'Independent,' 'Harper's,' 'Century,' 'Lippincott's,' Encyclopædias without number, and every other paper or book that I could lay my hands on nearly. I have asked every one I knew from C. C. Coffin the well-known writer down to the village newsboy. I thought at first my search was hopeless, but my brother (who is in a newspaper office,) received a paper containing the names of eight or ten of my answers. Then hope rose again; but alas, the fatal shadows of two unanswered questions still interpose between me and my *Life of Bayard Taylor*."

In regard to the Series of Prizes offered to the Members of the Union by the Publishers of WIDE AWAKE, for the Four best Neighborhood Diaries, one Prize only has been awarded: the one of \$10. This has been won by Master Edward T. Walker of Westfield, N. Y., a wide awake lad eleven years old. His journal recorded interesting accounts of many C. Y. F. R. U. meetings, giving a vivid impression of the interest felt in the Westminster Abbey papers, the Art articles, the "Experiments in Chemistry," and the "Search-Questions in American Literature." There were also glimpses of skating and Christmas-tree pleasures, and a glow of the bonfires and flags and torchlights of the Presidential campaign. We regret that so few of the other Diaries were completed and sent. We hope that in the Second Competition, "A Boy's Menagerie," which closes February 1, the entire Series of Prizes can be awarded.

Of the portrait of the famous old statesman, Thomas H. Benton, which we give in this month's "Souvenir," his daughter, Mrs. Frémont, writes thus in sending the photograph: "It is like my father, simply natural, and himself . . . bringing back to me the long years of reading and discussion we had together . . . the portrait of a firm, wise, patient, and largely-indulgent because largely-comprehending man. . . . My father was seventy-two when this was made. His health was perfect—his firm mouth closed over teeth as strong and as many as in his boyhood. He would put one foot in the stirrup, and grasp the mane with one hand, and vault into the saddle lightly, riding a powerful and spirited horse.

"After his last illness began, Mr. Pierce (President then), wanted to buy "Paul" (the horse). 'Tell my friend Pierce,' my father said, 'that he has not the decision of character required to ride my horse—the horse would find it out at once and throw him.' Paul would jump—all four feet—and 'shy' at the same time, if he felt like it, and it was a pleasure to people in Washington to see my father's firm seat, and the way he would carry the horse again and again past the offending object—sheets of tin, snow-shoveling, or what not."

THE WIDE AWAKE POST-OFFICE.

A CORRECTION. By some misplacement the line "A Dive from the Rialto," was substituted for the original descriptive line, "A Header" under the full page illustration on page 115 of the January WIDE AWAKE. The bridge in the drawing is not the Rialto, which Mrs. Downes describes, but is a small and unimportant bridge back of the famous Bridge of Sighs.

KEWANEE, Ill.

DEAR WIDE AWAKE:

I and my friend thought we would write to you. I have taken you for four or five years and we have enjoyed reading you very much. We have also read some of your recipes for candy, and we thought we would send you a recipe for pop-corn balls which we have had great delight in making, and found them to be very nice. The recipe is as follows: Pop as much corn as you want and put it in a large dish so it can be easily mixed with the candy; for the candy take one cup of New Orleans molasses, a piece of butter the size of a walnut, and one half tablespoon of vinegar, and two tablespoons of sugar; and when done put in a little soda. Then pour the candy over the pop-corn slowly, so it can be mixed well, and then butter the hands and make the balls. If any one has a good recipe for making maple caramels, please send it to us through the WIDE AWAKE. We had a great time the other day trying to put up a string on two spools to carry letters on across the street from one house to the other, but we did not succeed; for we found the string was not strong enough. Our friends Lillie and Ada tried it and had success; but in the night some boys got up in the trees and pulled it down. Will some one please send us a good game to play, one that two or three can play.

BLUEBELL AND VIOLET.

Box 1031, FRANKLIN, Pa.

DEAR WIDE AWAKE:

I have taken you almost ten years, and like you better than any other magazine I have ever taken, and I take a great many papers and books. I have not seen any letters from this city yet, but I know I am not the only one here that takes you. You do not come in my name for I get you from one of the leading bookstores. I was looking over my old WIDE AWAKES and when I looked over the Post-Office, I saw several letters from "Dorothy." Now I should like to know who Dorothy was, and what became of her. I tried Elizabeth Cuming's recipe for butter scotch, and found it good. I am learning "The Praising Daisies," but cannot play it all yet. I thought "A Brave Girl" and "Caravan Days" splendid stories, and I wish that the author of the "Royal Lowrie" stories would write more about Royal and his friend Archer Bishop. I am very fond of reading and would like to corre-

spond with Daisy Chase, if she will please write to me first, for she did not give her full address, and I am afraid she would not get it if I would write to her first. I give my address in full, so if she wishes, she can write to me. I am thirteen years old.

MAUDE FINDLAY.

BOSTON.

DEAR WIDE AWAKE:

I am a little girl ten years old, and have taken you for four years and enjoy reading you very much. I think your continued stories are lovely, and hope you will have as nice ones next year. I wish there was some more about "A Brave Baby," and think it would be well for both old and young to try and have what she had — courage.

I read Eva Mayhew's question about rivers, and took the liberty to answer it; she thought it was the Nile but it is not; the Missouri to the sea forming the longest river in the world is 4200 miles long, the Missouri to its junction with the Mississippi is 2900 miles, the Mississippi proper is 2800 miles, while the Nile is 4000 miles.

RIVERVALE, N. J.

DEAR WIDE AWAKE:

This is the second year I have taken you and I like you ever so much. I like "In No Man's Land" very much. Mamma and my sister Lulu like "Anna Maria's Housekeeping," and mamma would like to know if it is finished as she did not see it appear in the last numbers. I would like to correspond with some of the little WIDE AWAKE girls who are fond of reading. I love to read and I read a great deal. I am nine years old and have two sisters and one brother. I look forward with delight to your coming, I have such a nice time when you come. I would like to see this letter in print very much as I would like to surprise my father and mother. If any of the girls would like to correspond with me, address letters to

E. CHRISTINE SNOW.

Rivervale, Bergen Co., N. J.

The ANNA MARIA PAPERS were concluded in the September number of 1884.

DEAR WIDE AWAKE:

If any of the readers of the WIDE AWAKE love to make candy as well as we do I think they will like us to send them a receipt of chocolate candy which we think is very nice: Four cups of molasses, three of sugar, one and one-half tablespoonful of butter, one cup of milk, one tablespoonful of flour. Let it boil. It will harden when dropped in cold water, if done. Just before taking from the stove, add one quarter cup of chocolate; stir it in, and then add one-half teaspoon of vanilla. Please report success. We

would like to correspond with some of the WIDE AWAKE readers; if they would also like to. Let us know through you and if they will send us their address, we will write to them first.

(14 yrs.) ELIZABETH TAPLEY.

(15 yrs.) HELEN HARVEY.

EDGARTOWN, Mass.

DEAR WIDE AWAKE:

You have all read of those marvellous giants who lived ages ago when this old world was young; and I verily thought those fabulous days were returning when I went down to the wharf the other day to see the steamer *Tallapoosa* brought in after a two months' sojourn at the bottom of the Vineyard Sound. Do you remember how she went down on the night of Aug., 21, 1884, sailing happily along — over calm waters and under cloudless skies. A schooner under full sail struck her, and in ten minutes she was buried in the sea. But of the one hundred men on board all except two were saved. And it was not a lucky chance that saved those men either. It was discipline, a more potent force even than a giant's strength. The men on these vessels are drilled for just such emergencies as this so that when the command is given, "Abandon the Ship!" each goes to his appointed place in his own boat, and not even a second is lost in determining what to do.

Then followed this other marvel, the lifting the huge steamer from her ocean-grave. This was done by means of pontoons. And what are pontoons? Nothing more or less than huge boxes, a hundred feet long, fifteen feet wide, and ten feet high, air-tight, of course. The wreckers, who from the first were busy about her bringing up various treasures from her cabins, fastened great chains to the bottom of the *Tallapoosa*, which chains were brought up through openings in the bottoms of the pontoons and secured to their decks. There were two pontoons on either side and these were joined by stout timbers. Everything being in readiness, the pontoons were filled with water and sunk. Then the water was pumped out, and a vacuum being made, the pontoons rose of course, bringing the steamer with them. It looks very easy, doesn't it, when you know how it is done? This maneuver had to be gone through with a good many times, however, before the *Tallapoosa* with her attendant pontoons and the United States Steamer *Nina* were moored in safety at a wharf in Edgartown harbor.

Do you wonder that the inhabitants of that town, men, women, and children, turned out *en masse* to see her, and a sight she was to be sure with the great hole in her sides made by the colliding schooner, steeped in salt water, rusty, overgrown with barnacles and her decks strewn with the litter of housekeeping — for living on a steamer is very much like keeping house anywhere else. The people climbed upon the pontoons which lay between the wharf and the steamer, and made the perilous journey over them, just to look and to secure a relic. Most of us, you know, like relics. Bits of china marked "U. S. N." and covered with barnacles, delicate wine-glasses that not even the shock of the meeting vessels had shattered, silver-plated sugar bowls and fruit dishes stained and blackened with sea-water, strips of drapery, pieces of dead-light glass, water-monkeys (vessels for keeping water cool), anything, everything, even to a piece of bread

from the refrigerator, or a leg of a stool, was of value as a relic. One lucky individual secured a piece of the hand-painted bowl from the state-room which was fitted up for President Garfield during his illness, when they thought of conveying him from Washington to Long Branch by sea. But the busiest of all the busy relic-hunters were the boys who spent hours poking over the *debris* on the decks, expecting to find nobody knows what, but something of special value doubtless. As for myself, as I said at the beginning of this letter, I could only look and wonder at the marvels that modern science and skill can accomplish, and for one I do not regret those days when our old world was young and giants dwelt thereon.

F. A. D.

STILLWATER, Minn.

DEAR WIDE AWAKE:

I suppose you know that nearly all kinds of birds take their flight to a warmer part of the country in the far distant South, upon the approach of cold weather; and come back to us again with the opening days of spring. Among these are the blackbirds. But one winter, not many years ago, in a logging camp, away up in the Minnesota Pineries, where the weather is very cold in midwinter, two blackbirds remained all winter, making their home in the building used as a stable for the oxen. The rough lumbermen, who had never known of a case like this before, were pleased and were kind to the little birds; the man who had charge of the camp and cooked for the stalwart choppers, scattered crumbs for them in generous quantities near the camp door, and the birds soon learned to expect their food at regular times each day.

When the weather was extremely cold the little birds kept in the stable (or, as the men call it, "hovel") all through the day. That is, they would "sit in the barn to keep themselves warm and hide their heads under their wings — poor things." And when the oxen were driven home from their work in the evening, the birds would hail them with cries of welcome; and alight on the warm backs of the oxen and nestle down in the thick bushy hair, probably to warm their toes. And every night they slept on their chosen perch, nestled down snugly on the backs of the good-natured beasts who either did not care or were unaware of their presence.

In sunny days they flew about; alighting in the tall pines and on the big log building — which the men call the "camp" — but never, during all that long winter, did they go far away from their chosen home.

A. B. E.

STRATFORD, Conn.

DEAR WIDE AWAKE:

I have bought you every month for two years, but have only began to subscribe for you for 1885. I think you are a splendid magazine. I am very much interested in the story entitled "In Leisler's Times" and enjoy reading "The Making of Pictures," for I draw (chiefly animals), and am very fond of it, but have never taken any lessons.

We have a black cat which is very smart and she has three of the dearest little fat kittens; the only trouble is, it is very hard to find homes for them.

TEDDIE B. ASPELL.

To members of the Chautauqua Young Folks' Reading Union:

The Publishers of the C. Y. F. R. U. READING COURSE desire to show their pleasure in the high aims and praiseworthy perseverance of the members of the Union, most of whom have taken the three annual courses of Readings already published. Therefore they have decided to offer in connection with the next course,

Four Series of Prizes to the C. Y. F. R. U.

Each of the four series will consist of four money awards. (*sixteen prizes in all*):

\$10.00, \$5.00, \$3.00, \$2.00.

FIRST SERIES. In *Ways to Do Things*, in the Oct. '84 numbers of **WIDE AWAKE** and the **CHAUTAUQUA YOUNG FOLKS' JOURNAL**, Sarah Orne Jewett writes concerning "Town Clerks," proposing that every young person become a Town Clerk by making and preserving a record of all important and interesting events which take place in the town. The Publishers believe her suggestions will produce good habits of written expression, of observation also, and induce young people to take an intelligent and thoughtful interest in social and public affairs; and accordingly they offer Four Prizes of \$10.00, \$5.00, \$3.00, and \$2.00, respectively, to the writers of the four best Records or Neighborhood Diaries which shall be sent them by January 1, 1885. These records may be more or less historical or of current events only. The competitors must be Members of the C. Y. F. R. U., and not over eighteen years of age. Clearness, vivacity and conciseness of narrative, and good penmanship, will be taken into consideration. The prizes will be awarded and sent February 1, 1885. The names of the Winners will be announced in the March numbers of **WIDE AWAKE** and the **JOURNAL**.

SECOND SERIES. In the Nov. '84 numbers of **WIDE AWAKE** and the **CHAUTAUQUA YOUNG FOLKS' JOURNAL** there will be published, in *Ways to Do Things*, an article entitled "A Boy's Menagerie," which gives full directions for the manufacture of tent, cages and animals. To the four Members of the C. Y. F. R. U. who send the four best Collections of Animals which they themselves have drawn, colored and mounted, together with a set of Showman's Speeches concerning these animals, the Publishers will award Four Prizes, of \$10.00, \$5.00, \$3.00, and \$2.00, respectively. They will take into consideration good drawing, truth of coloring to nature, and the knowledge of natural history shown in the "speeches," also the wit and humor, also correct composition and good penmanship. Both boys and girls may compete, and competitors shall not be over fifteen years of age. This competition will remain open until February 1, 1885, and prizes will be awarded and sent March 1, 1885. The names of the Winners will appear in the April numbers of **WIDE AWAKE** and the **JOURNAL**.

THIRD SERIES. In the October 1884 numbers of **WIDE AWAKE** and the **CHAUTAUQUA YOUNG FOLKS' JOURNAL**, Rev. Dr. Edward Everett Hale begins a series of articles, *Boys' Heroes*. All boys, all girls, have their heroes, beings whom

they delight to dream about, beings who have achieved resplendent greatness or goodness, whose names they thrill with generous pride and admiration to hear. Dr. Hale, in making his list of twelve heroes, consulted with several boys and girls; but he could not hear, one by one, from the multitude. The Publishers here offer to the writers of the four best Essays, entitled "My Favorite Hero," Four Prizes, \$10.00, \$5.00, \$3.00, and \$2.00, respectively. The writers must be Members of the C. Y. F. R. U., and under eighteen years of age. Excellence of style and soundness of thought will be considered, also penmanship. This Competition will close March 1, and awards will be made and sent April 1, 1885. The names of Winners will be published in the May numbers of **WIDE AWAKE** and the **JOURNAL**.

FOURTH SERIES. There is a growing interest felt in handiwork,* by both boys and girls. The use of tools, in the construction of articles decorative and useful, is becoming a valued accomplishment. To encourage this taste, the Publishers offer Four Prizes of \$10.00, \$5.00, \$3.00, and \$2.00, respectively, for the four best Original Designs for any useful or decorative articles which can be made, presumably, by persons under sixteen years of age. These designs shall consist of the needful diagrams, accurate in shape and size reductions, definite descriptions of materials, and plain working directions. Housekeeping and furnishing conveniences, whether manufactured with "tools" or with needle, and appliances for out-of-door life and sports, will be considered in preference to articles purely decorative. Should any of the essays in this series be esteemed desirable for use in **WIDE AWAKE** or the **JOURNAL** they are to be the property of the Publishers for that purpose. This competition is open to all members of the C. Y. F. R. U. under twenty-one years of age, and to them only. It closes April 1, and prizes will be awarded and sent May 1. The names of the Winners will be given in the June numbers of **WIDE AWAKE** and the **JOURNAL**.

Offer Extraordinary!

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In addition to the announcements of Prize Winners in the March, April, May and June numbers of **WIDE AWAKE** and the **JOURNAL**, there will be published in these numbers the names of all competitors whose efforts deserve *Honorable Mention*, and to all who win this distinction will be mailed, at the times of sending the money awards, a volume of the popular Young Folks' Library* to the boys, *Tip Lewis*, by Pansy; to the girls, *Margie's Mission*, by Marie Oliver.

Competitors must be subscribers to **WIDE AWAKE** or the **JOURNAL**.

All letters and packages must be fully prepaid, and addressed to D. Lothrop & Co., 32 Franklin St., Boston, Mass., U. S. A., and must be accompanied by the address of sender *within the parcels*. All matter accompanied by stamps and request for return will be returned to the authors at the proper time.

*See "A Boy's Workshop," C. Y. F. R. U. Course for 1883.

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† EXPLANATION. The regular price of the *Andover Review*, for example, is \$3.00. We furnish this *Review* with WIDE AWAKE, for \$5.60; the *Review* with either OUR LITTLE MEN AND WOMEN, or PANSY, for \$3.60; the *Review* with the CHAUTAUQUA YOUNG FOLKS' JOURNAL, for \$3.35; the *Review* with BABYLAND, for \$3.10.

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UP HILL AND DOWN DALE. By Laura D. Nichols, author of "Overhead," "Underfoot," etc. Very fully illustrated. Beautiful cover in colors. Quarto, \$1.25. It is impossible to take the children for a country walk, armed with this book, or to settle them for a quiet home evening around the winter fire, this book in hand, without rosy cheeks, sparkling eyes, clear alert minds projecting a volley of bright questions, as a result. It is an intelligent captivating little treatise on Nature; her influence and methods, executed in that deliciously natural way that charms the young folks already surfeited with stories. Try it on any houseful of children of your acquaintance. It will prove a delightful experience.

THE GRAY MASQUE: AND OTHER POEMS. By Mary Baker Dodge. Boston: D. Lothrop & Co. Price 1.25. The author of *The Gray Masque* is favorably known to the public by her contributions to the press, which are here collected, with others never before published, into a handsome volume. It requires no more than a cursory examination of the book to convince the reader that Mrs. Dodge is a genuine poet. She writes from the heart, and without any of the affectations which seem to be almost inseparable from the work of many authors. Her themes are pure and elevated, and in all her book there is not a line tainted with morbid feeling or unwholesome sentimentality. The contents are varied in character, and include poems of imagination, of love, of home and home affections, devotional poems, and those inspired by a love of nature or by religious or patriotic anniversaries. The volume is tastefully printed and bound.

FAR GONE IN CONSUMPTION, AND WITH BUT FAINT HOPE OF A LONG SURVIVAL.

The following letter will be read with deep interest by all who are afflicted with pulmonary disease, especially where its progress has been steady and in spite of all that physicians could do to arrest its course. In this case there was a racking and painful cough; no perceptible action in the right lung; profuse night sweats, a feeble circulation, great weakness and emaciation, and a depressing sense of rapidly failing vitality. After using the Compound Oxygen Home Treatment the sufferer was so far improved that she was able to do light work about the house and walk out nearly every day. There was an increase of flesh, a healthy circulation of the blood, a good appetite, and the right lung was restored so far that it could be filled measurably well in respiration. But we will let the writer tell her own gratifying story:

"RUSHFORD, N. Y., Nov. 22d, 1884.

"DRS. STARKEY & PALEN:—As a subject of the Compound Oxygen Home Treatment, I desire to give a testimony to its results in my own case. For many years I have been subject to a cough, with occasional attacks of congestion and inflammation of the lungs; but with constant care and a goodly amount of hard battling, have been able to hold further development in check, until within the year previous to using your Oxygen remedy, when the vital forces became so weak that resistance was only a thing of the past. Hot compresses, mustard plasters, etc., only gave short-time relief, while the disease proper seemed to gain new force from the slight obstructions it had thus to encounter.

"I had given up all hopes of recovery, deeming it only a question of time how long or short my stay might be, when a copy of your journal, *Health and Life*, came to me through the mail. Its perusal awakened a belief that I might be benefited, if not cured, by your Treatment. But so distant, vague, and shadowy had life become that I could hardly persuade or compel myself to make any effort for recovery.

"I had a racking cough night and morning, and often during the day, accompanied with a tearing pain under the right shoulder-blade. The right lung had no perceptible action in respiration. Night-sweats profuse, great emaciation; circulation so weak that the blood would settle in the hands and under the nails, giving that purple hue peculiar to strangulation.

"When I ordered my first supply of your Oxygen Treatment on the first of last March, I had but faint expectation of remaining through the spring time. The first three weeks of treatment made no perceptible change for the better, but contrawise; cough was more continuous; expectoration of a more disagreeable character and ulcerations following one after another in quick succession. The Treatment was faithfully followed, and the first evidence of benefit therefrom was the occasional feeling of helpfulness that would come like the bright flash from some beautiful, yet long-forgotten, dream.

"Now, having nearly used the second supply, I find myself competent to do quite a little light work about house, walk out on the street nearly every day, and do many things I had long been unable to do. I have increased in flesh, circulation is healthful, appetite is good, I sleep well, and can lie on the right side and fill the right lung measurably well. It is somewhat heavy and sore at times yet; cough continues, but very much lessened, and expectoration less objectionable. Shall send for another supply soon as convenient, with full hope and confidence of wholly dispelling the cough and restoring the lung to a comparatively healthy condition.

"MRS. M. HOWSER."

AN ELOQUENT LECTURER.

A well-known Temperance worker and Bible reader, Mrs. M. Cator, of Camden, N. J., has been raised almost from the grave, and restored to good health by the use of Compound Oxygen. In giving a reporter of the press an account of her recovery, she spoke of a number of cures by means of this Treatment which had come under her immediate notice. We give one of the cases mentioned: "Let me tell you," said Mrs. Cator, "that what Compound Oxygen has done for me is nothing to what it has done for some of my friends. There is Miss Frances E. Willard, who is everywhere known as one of the most eloquent of our Temperance speakers. The other day I had a letter from Iowa, in which she thanked me for having brought Compound Oxygen to her notice. She had been badly run down by overwork, constant speaking, and travel. She is now as strong as ever, and in perfect health for active duty."

Other cases, even more remarkable, which had come to her knowledge were described by Mrs. Cator.

DRS. STARKEY & PALEN,
1109 and 1111 Girard Street, Phila., Pa.



THE CHILDREN OF WESTMINSTER ABBEY.

BY ROSE G. KINGSLEY.

VII.

THE PRINCESSES SOPHIA AND MARY.

IN 1603 a great change came over the destinies of England. Queen Elizabeth, the last of the house of Tudor, died. And James of Scotland, the first of those Stuart kings who were to bring civil war, ruin and disgrace on our land, came to the throne. A hundred years before, the rich Tudor architecture had taken the place in Westminster of the grave Gothic of the Middle Ages. Now the strong rule of the Tudors — often unscrupulous, but generally able — was in like manner succeeded by the extravagant misrule of the Stuarts.

It was, however, through their Tudor blood — through their descent from Henry the Seventh, the great-grandfather of that most unhappy woman, Mary, Queen of Scots — that the Stuarts succeeded to the English throne. It was fitting, therefore, that they should turn to the chapel which had been built as a burial place for the Tudor race. And within four years of James the First's accession, two "royal rosebuds" were laid to rest within its walls.

Let us go to-day and see their monuments.

We mount the wide steps at the extreme east end of the ambulatory, that form a sort of vestibule of deepest shadow under the massive archway which joins the Abbey to Henry the Seventh's Chapel. The black and white marble floor gleams cold, and the sun streams in through the eastern windows upon the brass of Henry the Seventh's tomb as we look through the great bronze gates. But we will not enter them. We will turn to the left, where an open doorway leads us out of the dark entry at the head of the steps, into the quiet light of the north aisle. On either side of the great central chapel run these two aisles, only divided from it by slender pillars and by the dark oak stalls of the Knights of the Bath. They are separate chapels, narrower and smaller than the main one, but equally beautiful; with the same cobweb-like stone roof; the same clusters of pillars spreading out into fan traceries; and deep, embayed windows full of hundreds of dia-

mond panes toned down by the grimy London air into a mellow amber color.

As we enter the north aisle we tread on a stone that bears the name of Addison. Famous men, poets, generals, statesmen, are all about us. But the great monument that stands in the centre of the chapel claims all our attention. Under a magnificent marble canopy, still and stern in death, lies the last of the Tudors — that splendid personage who, for more than fifty years, ruled over England and kept all Europe at bay; and who by word and deed encouraged those who laid the foundation of the great transatlantic England. Yes! there sleeps Queen Elizabeth — the old lioness. And in spite of vanities and weaknesses that we are apt nowadays to dwell on all too hardly, she was perhaps the greatest woman that England has ever seen. Her tomb, built by James the First, "of white marble and touchstone from the royal store at Whitehall," is not only a worthy memorial of her, but a token of the peace and goodwill that the great Abbey speaks of to all who will hear. For by her own desire, Elizabeth was buried in the same grave with her sister Mary, that sister whose very name seems only to bring to mind hatred and persecution, the stake and the fagot. Now she and Elizabeth are at peace. And on their monument James the First inscribed "two lines, full of far deeper feeling than we should naturally have ascribed to him":*

Fellows in the kingdom, and in the tomb. Here we sleep; Mary and Elizabeth, the Sisters; in hope of the resurrection.

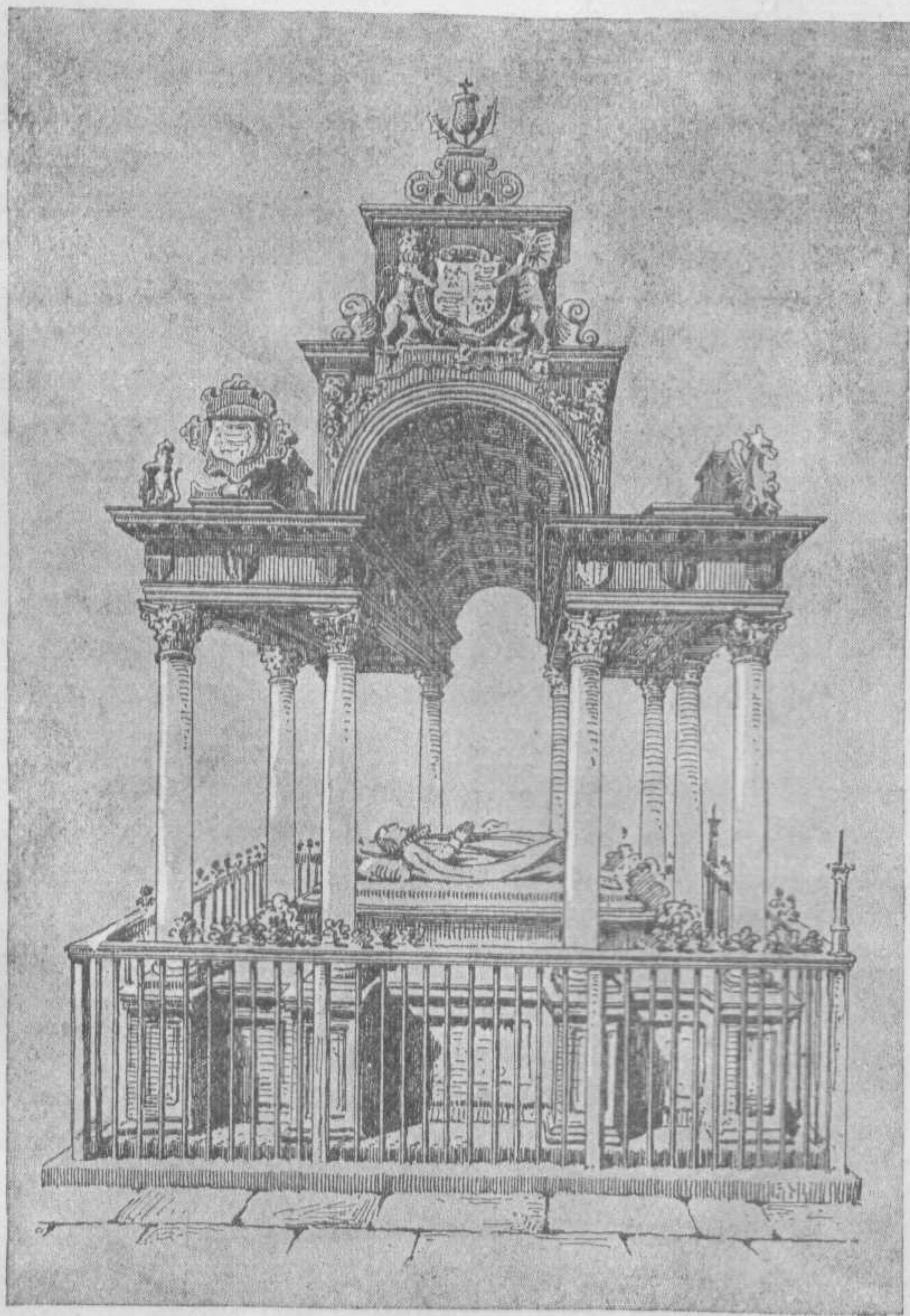
There is another effigy of Queen Elizabeth in the Abbey; and a very curious one it is. From the thirteenth century until the beginning of the eighteenth, it was the custom at royal funerals to carry a life-size, waxen image before the coffin, representing the dead in the clothes they wore. These effigies were left on the grave for about a month, and some of the Abbey officials gained their living by showing them to visitors. Most of the waxen figures have crumbled to dust. The writer believes that she was the last person to look at that of hapless Anne Boleyn. It had so fallen to pieces as to

* Memorials of Westminster Abbey. p. 181.

be a very hideous object, and it has since been locked up and shown to no one. But in an upper chamber over the Islip chapel, reached by a little dark stairway, eleven of these strange figures are still to be seen in wainscot cupboards with glass doors. Among them is Queen Elizabeth; not the original effigy — that was worn out in 1708, when a certain Tom Brown who wrote *A Walk through London and Westminster*, says that he saw the remains of it. This is a copy made in 1760; and we see the poor old queen, dressed in the long-waisted bodice and hooped skirt we know so well in pictures. It is a piteous sight, however; for the effigy, battered and sorely the worse for wear, is leaning up against the side of the glass cupboard in a most undignified attitude. One would rather think of her as she lies still and stately in the beautiful north aisle.

But we must linger no longer about Elizabeth's effigy or her tomb. We must pass on to the east end of the chapel, and there we shall find the monuments of her two little cousins.

On what used to be the altar step of the north aisle



THE MONUMENT OF QUEEN ELIZABETH IN THE NORTH AISLE.

stands a baby's cradle — a cradle on real rockers. A gorgeous coverlet, all trimmed with rich guipure lace, falls from the corners of the cradle in splendid, rich folds. The arms of England, Scotland, and

Ireland are carved on the back. And when you look under the head of the cradle you see that a baby lies sleeping in it. A darling tiny baby it is — its little wee face set in a close lace cap and lace ruff, under a kind of lace-trimmed hood that forms part of the pillow. You can almost fancy that if the cradle were set rocking the babe might open her eyes. But "baby and cradle, and all," are marble — marble, yellow with the dust and wear of nearly three hundred years.

"The Cradle Tomb" of Westminster, as it is called, has been far better described than by any words of mine. A card hangs close beside it, placed there by desire of Lady Augusta Stanley, on which is a poem "by an American lady." That lady is a well-known favorite of all WIDE AWAKE readers; for she is none other than "Susan Coolidge." And the lovely verses — some of which I venture to transcribe — appeared in *Scribner's Monthly* for 1875:

A little rudely sculptured bed,
With shadowing folds of marble lace,
And quilt of marble, primly spread,
And folded round a baby face.

Smoothly the mimic coverlet,
With royal blazonries bedight,
Hangs, as by tender fingers set,
And straightened for the last good-night.

And traced upon the pillowing stone
A dent is seen, as if, to bless
That quiet sleep, some grieving one
Had leaned, and left a soft impress.

But dust upon the cradle lies,
And those who prized the baby so,
And decked her couch with heavy sighs,
Were turned to dust long years ago.

The inscription on her cradle tells us that this dear baby,

Sophia, a royal rosebud, plucked by premature fate, and snatched away from her parents — James, King of Great Britain, France and Ireland, and Queen Anne — that she might flourish again in the rosary of Christ, was placed here on the twenty-third of June, in the fourth year of the reign of King James, 1606.

The little creature was born on the twenty-first of June at Greenwich — a favorite palace of the English sovereigns. Great preparations had been made for her christening, and for the tourneys which were to be held at the same time in honor of her grandfather, the King of Denmark's visit. But the baby only lived two days, and was hastily baptized "Sophia," after the Queen of Denmark. James the First gave orders that she should be buried "as cheaply as possible, without any solemnity or funeral."* Nevertheless he made a contract with Nicholas Poutrain, the royal sculptor, for her monument, the cost of which was not to exceed one

* Fuller's Worthies.

hundred and forty pounds. And we find that her coffin was very solemnly conveyed up the river by barge, covered with black velvet, accompanied by three other barges covered with black cloth and bearing many nobles, lords, ladies, and the officers-of-arms, to the Parliament stairs at Westminster. Thence the procession went to the south-east door of the Abbey, where it was met by the great lords of the Council, the Heralds, and chief officers of the court, the

Dean and Prebends with the choir; and so they passed to King Henry the Seventh's chapel where there was an Antiphon sung with the organ; in the meantime the Body was interred in a Vault at the end of the Tomb then erecting for Queen Elizabeth.*

The chief mourner was that unhappy Lady Arabella Stuart, King James' cousin, who, years after, ended her troubled life in the Tower, and was brought like little baby Sophia "by the dark river," and laid in the same grave as Mary, Queen of Scots, her kinswoman.

Upon the same altar step there is another monument to a little princess — Sophia's sister Mary. She was the third daughter of James the First: but the first princess of the new dynasty who was born in England, and the first royal child baptized in the Reformed Church. As "three quarters of a century had elapsed since a child was born to the Sovereign of England," great were the rejoicings on little Mary's birth upon the eighth of April, 1605. Bonfires were lighted, church bells were rung all day long, and there were scrambles for money in the streets.

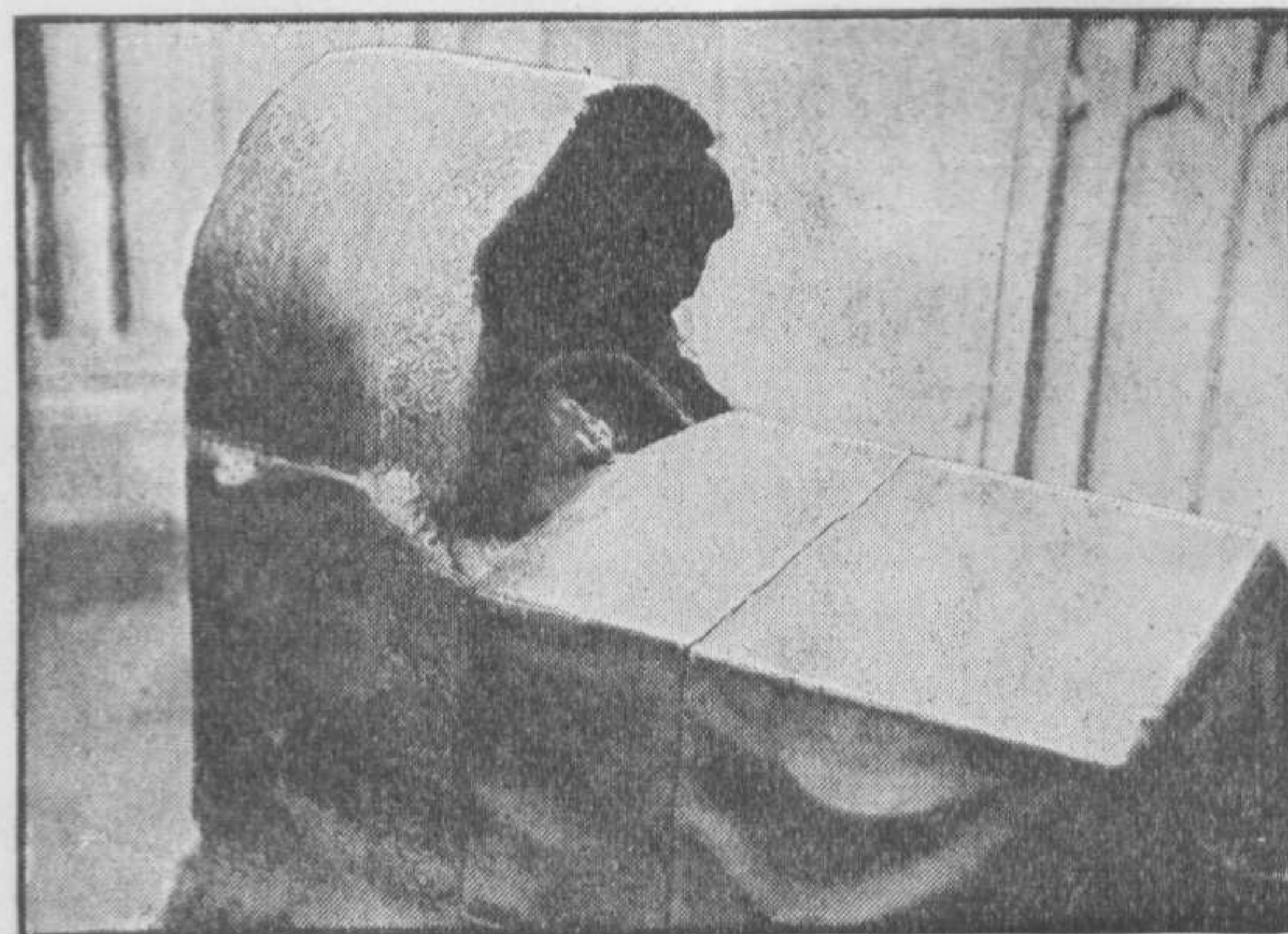
There is a curious account of the clothes provided for this first princess of Great Britain, which shows us how royal babies were dressed then. She had

a carnation velvet cradle, fringed with silver fringe, and lined with carnation satin; a double scarlet cloth to lay upon the cradle in the night; a cradle cloth of carnation velvet with a train, laid with silver, and lined with taffety to lay upon the cradle; two small mantles of unshorn velvet, lined with the same velvet; one large bearing cloth of carnation velvet, to be used when the child is brought forth of the chamber, lined with taffety; one great head sheet of cambric for the cradle, containing two breadths, and three yards long, wrought all over with gold and colored silks, and fringed with gold; six large handkerchiefs of fine cambric, whereof one to be edged with fair cut work, to lay over the child's face; six veils of lawn, edged with fair bone lace, to pin with the mantles; six gathered bibs of fine lawn with ruffles edged with bone lace; two bibs to wear under them, wrought with gold and colored silks, etc. †

The total value of these fineries and of all the lace and cambric required for the baby's trousseau was estimated at three hundred pounds.

Her christening, upon the fifth of May, was conducted on the most gorgeous scale that had ever

been seen in England. Many peers were raised to higher rank, and numbers of knights were created barons in honor of the occasion. The chapel at Greenwich palace was hung with green velvet



THE CRADLE TOMB.

and cloth of gold. "A very rich and stately font of silver and gilt, most curiously wrought with figures of beasts, serpents, and other antique works,"* stood under a canopy of cloth of gold twelve feet square. The child was carried from the queen's lodgings by the countess of Derby, under a canopy borne by eight barons. Dukes and bishops, earls and barons went before the Earl of Northumberland, who bore a gilt basin; and the Countess of Worcester came after him, "bearing a cushion covered with Lawne, which had thereon many jewels of inestimable price."† The Lady Derby's train was borne by the greatest countesses in the land; and the baby's "train of the mantle of purple velvet, embroidered round about with gold, and furred with ermines,"‡ was borne by noblemen. The Archbishop of Canterbury christened the little princess. Her godparents were the Duke of Holstein, brother to the queen, the Lady Arabella Stuart, and the Countess of Northumberland. And when the christening was over, "the heralds put on their coats, the trumpets sounded," and Garter, King-at-arms, "making low reverence unto the King's Majesty,"§ proclaimed the little girl's name aloud in the chapel.

Times have happily changed since those days. Contrast all this fuss and cold formality with a simple christening that took place only a week ago in England. A little royal duke, in whose veins the blood of the Stuarts still flows, was brought to the font of the quiet village church of Esher in Surrey. Very peaceful and unpretentious was the baby Duke of Albany's christening — poor little

* Sanford. Kings and Queens of England. Book 9. p. 577.

† "Princesses of England." M. A. E. Green. Vol. 6. p. 91.

* Nichols. Vol. 1. p. 572.

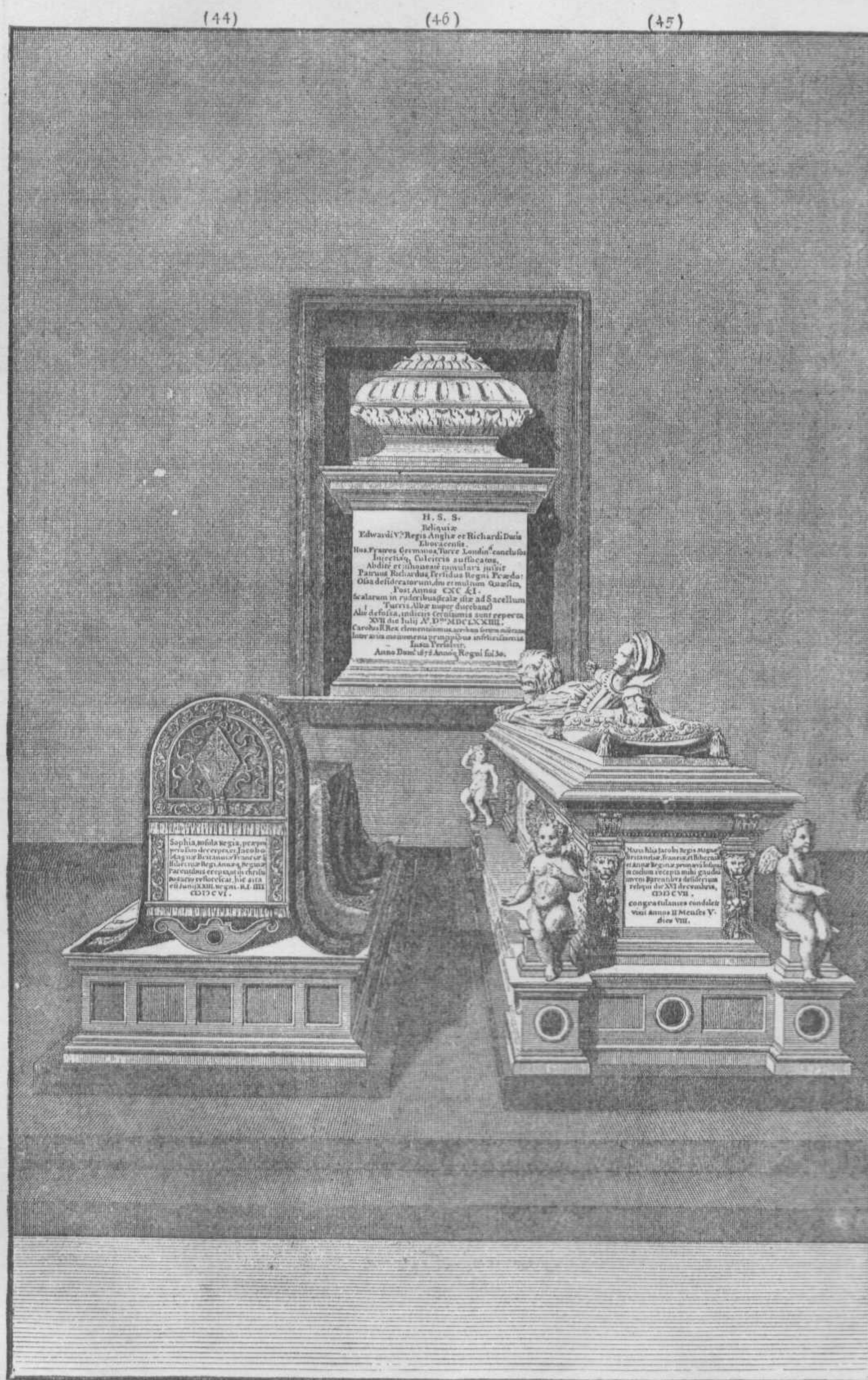
† Stow's Chronicle. p. 862.

‡ Green's Princesses. p. 92.

§ Nichols. Vol. 1. p. 573.

fatherless boy. But there were none present who did not truly love and honor the widowed grandmother who held him in her arms and the young widowed mother who stood by, or mourned for the accomplished, studious father, who died but a few months ago. Which is likely to have the happiest childhood — the little Guelph wrapped in the pure white Honiton lace robe in which all the children

blest commoner, they stay safe at home in their nice, warm nurseries, under their mother's eye. But the royal children of that date were sent off to be cared for "by trusty persons of quality." Little Princess Mary was given into the charge of Lady Knyvett. And on the first of June, when she was not two months old, she was taken down to Stanwell where Sir Thomas Knyvett lived.



THE MONUMENTS OF PRINCESS SOPHIA AND PRINCESS MARY.

and grandchildren of Queen Victoria have been christened; or the little Stuart in her purple velvet train, among the cloth-of-cloth, and heralds, and grandees of James the First's heartless, luxurious, extravagant court?

Babies were differently treated in those days. Now, be they children of a queen, or of the hum-

He was allowed twenty pounds per week for the diet of the princess and of her suite, consisting of six rockers, and several inferior attendants; but the king took upon himself the payment of their wages, the expense of her removals from house to house, of her apparel, coach and horses, etc. *

Lady Knyvett took the greatest care of her little charge. But children were badly understood in those times. Badly nursed, and fed, and clothed, two thirds of the babies that were born in England died. It was only the very strong ones who could survive their bringing-up. Think only of that stuffy cradle of "carnation velvet," and the "mantles of unshorn velvet," and the bibs "wrought with gold and colored silks." Hot, uncomfortable, unhealthy things—one shudders to think of a little tender baby in such garments. Then think of the utter ignorance of most of the physicians of those days; and of the appalling disregard of ventilation, baths, and proper food. What wonder, then, that little Princess Mary did not live long. When she was scarcely more than two years old she caught a violent cold, which settled on her lungs with burning fever. The queen came constantly to see her little girl. But no tenderness or skill availed; and after a month's illness the little creature sank on the sixth of September, 1607. For fourteen hours

there was no sound of any word heard breaking from her lips; yet when it sensibly appeared that she would soon make a peaceable end of a troublesome life, she sighed out these words, "I go, I go!"†

And again when some stimulant was given her she looked up and said, "Away, I go." And yet once more she repeated faintly "I go;" and so went home.

Thus another "royal rosebud" was laid beside the baby Sophia at Queen Elizabeth's feet.

* Green's Princesses. p. 94.

† Funeral Sermon for Prs. Mary, by G. Leech, preached in Henry the Seventh's Chapel, Sept. 23, 1607.

On her monument Princess Mary is represented lying on her side, half-raised on one elbow which rests upon an embroidered pillow, with one chubby little hand uplifted and clenched. She wears a straight-waisted bodice which looks as stiff as armor; an immensely full skirt that stands out all round her waist; a close lace cap; and a great square collar — the first representation in the Abbey, as far as I recollect, of those square collars that were soon to take the place of the beautiful Elizabethan ruff. At the corners of her tomb sit four fat weeping cherubs, one of whom has his hands raised in a perfect agony of grief. And a nice fierce little lion lies at the child's feet, looking very alert, and on the watch to guard his young mistress from harm.

It is a beautiful place to rest in — this quiet chapel, with its walls all covered with traceries, and great stone bosses suspended aloft in the blue mist of the roof. Over the stalls in the central chapel hang the old banners of the Knights of the Bath with famous names written upon them in letters of gold — names of warriors, explorers, statesmen, lawyers, men of science. Glints of deep red, blue and amber from

Storied windows richly dight,

flash through the dusky air. And above the tombs of the two young princesses is the urn containing the bones of Edward the Fifth and Richard Duke of York; making this chapel, as Dean Stanley aptly says, "The Innocents' Corner."

SOUVENIRS OF MY TIME.

BY MRS. JESSIE BENTON FRÉMONT.

VII.

MRS. MADISON AND MRS. HAMILTON.

I HAD the good fortune to be in Westminster Abbey and hear Dean Stanley illustrate the *Parable of the Talents* by the use made of the "talents" committed to their keeping by three distinguished men who had just died, and whose lives and deaths connected them with the Abbey — the Marquis of Westminster who had the "talents" of great family and social power as well as very great wealth, and whose right use of both is known; Mr. Peabody who also had the trust of great fortune and whose care for the poor of London gained him funeral honors in that historic church. Dean Stanley made you see they had been faithful to their trust.

His voice changed, however, and you felt how personal was the loss he had met in the death of the third — a clergyman, his brother-priest, and sharer in the sacred offices of religion. His talent had been a voice of such noble meaning and beauty that, the Dean said, it uplifted the hearts of all who had heard him officiating in the Abbey; there was a suggestion that this rare voice would have brought him wealth and fame, but he had chosen to turn from the world and dedicate his powers to God. And then, in his quiet way, the Dean told of the great spiritual good this had led to.

But "I am nothing," young people will say; "I have no power, no way, to do great things." Naturally, not much while you are but twigs, but you

can bend in a good or bad direction. See for yourselves the effect of different lives around you, and question yourself as to what use *you* are making of such gifts as you have. Youth in itself is a glorious gift and holds all possibilities.

Three women come to my mind as illustrations of this parable; one, as having kept hers "wrapped in a napkin." Each of them I knew in her very old age when time had put its stamp and verdict on the result; each had large talents entrusted to her; and long life and conspicuous position in which to use them.

Mrs. Madison was one. As the wife of a President, and during the stirring war-time of 1812, she had a governing position. She had the great gift of healthy beauty, and much clear common-sense as well as quick wit; but her crowning talent was her charm of manners. She had what the French term *courtoisie de cœur*, as well as the courtesy of form also. This, no selfish person can have. I once hurt the feelings of a very handsome, admired girl by saying no selfish person could have thoroughly good manners; she was selfish to the bone and knew it, yet had so much good in her that she was not comfortable even when she did have her own way, but it ended in only feeling uncomfortable — not in trying to be different.

The Empress Josephine must have had much the same manner as Mrs. Madison. So had Madame Récamier; I knew intimately well in Paris one of her old French friends who was part of her youth, as well as of her later days, who gave me a lovable instance of her prompt sympathy.

I have heard many things, too long to tell here, of Mrs. Madison's way of receiving in the White House. While she was talking with the more distinguished people her quick eye would mark some shy young man, or nervous-looking woman, not yet used to the society in which she was so naturally at home; after the first part of the reception she always moved about the rooms as a lady would in her own house, and in her own bright natural way said something to any one, especially to these shy and nervous people, which made them glow with the pleased feeling that they were welcome and made to be part of her reception.

Mrs. Bliss, the daughter of General Taylor, had this same charming nature. With the directness and singleness of her soldier-father she blended a sweet, gentle gayety which those who knew her brother, "General Dick Taylor," will feel was a family gift. I was in the Senate from California during her time, and often took to the Presidents "my constituents," sometimes people of every merit but unused to formal society, and it was pretty to see how they lost their feeling of being on guard and became as natural, and therefore as agreeable to Mrs. Bliss as to myself whom they knew and felt at home with.

Mrs. Madison's considerate happy manner outlasted time and change and many troubles, and made her house in Washington a place where strangers and residents went with pleasure—a shabby house, and the tall handsome old lady in shabby old gowns of velvet or brocade nowise altered from the fashion of her days of power. But she was MRS. MADISON. And in the Washington of my younger day name and character outranked appearances. No one questioned her wearing these short-waisted, puff-sleeved, gored velvet gowns, with a muslin neckerchief tucked into the low waist of the gown, and a little India scarf of lovely faded tones over it. A wide and stiff quilling of net rose high around her throat always—and, I fear me, a little rouge and powder were also in use to cover Time's footsteps; the bad taste of the day discouraged gray hair, and Mrs. Madison's dark row of curls was always surmounted by a turban. And with all this she was handsome, majestic and simply dignified. And very agreeable—with a memory and kind words for every one.

She dined out often and was the chief person always; and on New Year's day her rooms were crowded, for every one who was any one went there across from the President's. Mrs. Madison owned the house on the northeast corner of Lafayette Square, and Mr. Madison had left her good country property also. But her first marriage gave her a son who brought care and loss upon her; and at that time there was not, I think, any pension to the widows of Presidents. She had the franking privilege, I know, but that did not carry living expenses free.

Mr. Madison had a fine estate in Virginia, but in those days of difficult travel he could not go there often, and so his absence caused losses, for the Spanish proverb is true, that "the master's foot makes the soil rich." When he was about leaving Washington he found himself needing five thousand dollars more than he had to enable him to discharge every obligation and go home without debts. The old salary of twenty-five thousand dollars was at that time made to cover every possible expense of the President's house; not as now when the public and private expenses are provided for separately while the salary is doubled.

The manner of getting this five thousand dollars belongs to a by-gone day and also it belongs in my family which brings it within my telling. A cousin of the President had married my grandmother's sister (the same who as a little child had been called in by her mother to reassure Gen. Tarleton's English officers by eating the green peas which they thought were poisoned) and the connection became one of friendship as well as by marriage. Our Aunt Madison was left a widow at nineteen, with two little girls; rich, beautiful and most charming, but she would never re-marry. Her eldest brother was Frank Preston of Abingdon, who had every good gift in life and shared them in a large and splendid way. To him the President wrote of his need for this five thousand that he might leave Washington without a debt, and enclosed his note. And to him came the money immediately—for family pride, state pride, and the universal feeling of mutual support among gentlemen at that day, made any other answer simply impossible.

Mrs. Madison's moneyed troubles were telling on her health, and Mr. Buchanan made it his affair to have Congress buy some papers of Mr. Madison's. The bill lagged as usual, and he only carried it by telling of the needs of the venerable lady and asking that her eightieth birthday, now at hand, should be marked by this act of relief; which was done.

Mr. Buchanan and some other friends were named trustees to the sum to secure it from the son, and when she died, not long after, the same guardianship divided it fairly between the son she loved in spite of his unworthiness, and her faithful companion and niece, Miss Dolly Payne.

A better inheritance, given by nature, came to a great-niece of Mrs. Madison—Adèle Coutts—who was fully the equal of her famous aunt in beauty and sweetness of nature, while every charm that polished training and associations can give, she has gathered. She would have graced the White House had her first husband, Senator Dougless of Illinois, reached the Presidency.

Seeing her again but a few years ago, her freshness and added charm surprised me into asking her how she had kept the clock back? and suffered

no change only increase of beauty. "Because I am happy, I suppose," she laughed with a lovely blush.

Mrs. Hamilton, the widow of Alexander Hamilton, was in absolute contrast to Mrs. Madison. I know well a portrait of her taken in her early married days, and her own refined self I knew very well in her many visits to Washington quite toward the close of her long, useful, but quiet life.

Her portrait is in the same room with one of Hamilton. When Tallyrand was their guest he asked for this likeness of Hamilton, and on his return to France had it copied and sending them the copy, kept the original. After Hamilton's sudden death, this original was returned to the young widow by the Prince, with a letter so feeling that you rub your eyes after reading the signature with which such different character is associated.

The letter and portrait are among many historical treasures belonging of right in this home of a Hamilton. There is the portrait of Washington which he had had painted as a gift to Hamilton. It is put up on hinges and turns to any light wanted. It was deeply interesting to turn its serene, reposing countenance towards the quick dark young face of Hamilton, and the quiet high-bred young wife as yet untouched by sorrow. Her face is delicate but full of nerve and spirit; its long oval is made more long from the hair being brushed back over a high cushion, and the slim throat and long-pointed bodice add to this effect of slender length. The eyes are very dark and hold the life and energy of the restrained face. While the high-cushioned hair, the rich dress and conventional attitude tell of the woman of society, there is something deep and strong in the steady eyes and closed mouth which show a character of her own. She had not the beauty of her splendid mother—the wife of General Philip Schuyler, who, rather than let their crops be of use to the advancing English army (advancing on *Saratoga*!) herself led her people in firing them. But the high resolute nature was all there when the young widow found in her own sorrow and her own orphaned children the motive for a life which should lift neglect and sorrow from thousands of children. Her "talents" were many; illustrious names and a powerful family, the tenderest sympathy of a whole nation, and her own pitying loving nature blended with a rare sense of justice—all these she dedicated to the care of orphan children.

Her grief over her own children took the form of protection of those who were poor and unfriended as well as orphaned. To Mrs. Hamilton

is directly owing the first orphan asylum of New York. On its fiftieth anniversary a memorial service was held in the Church of the Epiphany (in Washington where Mrs. Hamilton then was for the winter) and the work and its greatly extended good were told over. The seed had become a tree with mighty branches. Mrs. Hamilton was feeble and could not sit through the whole service, but came only for a part—always, to the communion service. This Sunday she came in toward the close. Our minds and hearts were filled with the good work of this gentle lady when she entered—a very small, upright little figure in deep black, never altered from the time her dark hair was first framed in by the widow's cap, until now the hair was white as the cap. As she moved slowly forward supported by her daughter, Mrs. Holley, one common feeling made the congregation rise, and remain standing until she was seated in her pew at the front. Mrs. Hamilton, though receiving marked attention, preferred quiet, and returned but few visits. At our house one day a very young girl asked her if the story of "Miss McCrea" was true as told in the *Parley's History*. And she, in her kind way, told her the story as she knew it at the time—"when I was already a great girl," she said (she was never that in size). They knew "poor Jane"; and her father was so alarmed by the killing of Miss McCrea, that her mother and herself were not allowed to come to him—from Saratoga to Albany—until he could send them a strong escort.

Mrs. Hamilton retained her activity to great age. When I first lived on the Hudson River, quite near her son's home, it was still freshly remembered how the old lady would leave the train at a little way station and climb two fences in her short cut across meadows rather than go on to the town where the carriage could meet her. It was a delightfully historical house to me. Such an old, old serving man opened the door and ushered you into the square hall where the family tradition of service to the country met your eye in a fine life-size portrait by Staigg, of a great grandson—a young officer in blue uniform, his cap pushed back showing the same dark eyes of controlled energy.

And the tradition of good works too goes on. Louisa Lee Schuyler has been given a controlling part in the State Charities and Reforms and, with the aid of modern conviction on the necessity of being your "brother's keeper," has wide scope in carrying out ideas begun so quietly long ago by her noble great-grandmother.

And now for "the talent hidden in the napkin."

THE TEMPERANCE TEACHINGS OF SCIENCE.

VII.—THE ACTION OF ALCOHOL UPON THE HEART.

BY PROF. A. B. PALMER, M. D., LL.D.

THE subject of the action of alcohol upon the heart is of great importance. There is an old and still-prevailing opinion, even among members of the medical profession, that the different alcoholic liquors stimulate that organ, whatever else they may do; that is, that they increase its power and cause it to circulate the blood with more activity and force; and it is for this supposed effect that they are most frequently prescribed as medicines, and taken as fancied aids in the performance of labor. The expression that "Wine cheers the heart," is regarded as meaning that it strengthens and sustains its physical action, and that it or some other alcoholic liquor is useful, if not positively needed, in low conditions of the system with feeble heart force, and that it acts as a strengthener or tonic. That under peculiar circumstances of shock or great suffering a stimulating effect is temporarily realized from alcohol, I am not prepared to deny; but that this is its most essential action, or that it acts thus at all in ordinary conditions, is opposed to the present state of physiological knowledge.

It is held by physiologists that the direct action of an agent upon the muscular tissue and nerves of the heart, and upon its power and motions, is essentially the same in the lower animals and in man, and that whatever effect is demonstrated in the one is regarded as proof of the same in the other. It is this similarity in animals and man that makes experiments upon animals of such great importance to the interests of humanity.

Within the last few years experiments of the most exact and conclusive character have been made by skilled investigators, to determine the action of alcohol on the hearts of animals. To give the details of such experiments, even if fully intelligible to young readers, would occupy more space than is at our command. I must be content with stating the conclusions arrived at by acknowledged experts of the highest authority in these modes of investigation.

These experiments made upon the hearts of frogs were instituted for the purpose of determining the comparative effects of the different alcohols in their direct action upon that organ. It was found that all the alcohols (including common alcohol, the active principle in all our liquors) diminished the force of the heart's action, and arrested it in a shorter or longer time, in exact proportion to the strength of the respective arti-

cles and the quantity applied. A long series of experiments furnished the same results and demonstrated their correctness. Common alcohol is weaker and lighter than some of the other rarer alcohols, but heavier and stronger than others; but the effect in character was the same in all, differing only in degree. These eminent experimenters, in closing their report on these articles, declared: "That by their direct action upon the cardiac tissue, these drugs are clearly *paralyzant* (and not stimulating), and that this appears to be the case from the outset, *no stage of increased force or contraction preceding.*"

Professor Martin, of Johns Hopkins University, Baltimore, who has written an excellent work on Physiology, and who stands among the very highest in this country as an experimental physiologist, has made experiments on the heart of the dog, with the view of determining the precise effect of common alcohol when in the blood in certain proportions, upon that organ. A report of his experiments was published in the *Maryland Medical Journal* for September, 1883. Professor Martin states the results of his exact and conclusive observations as follows: "Blood containing one eighth per cent. of alcohol [that is, in the proportion of one eighth of an ounce, or one teaspoonful, to one hundred ounces, or six and a quarter pints] has no immediate perceptible action on the isolated heart. Blood containing one fourth per cent. by volume [that is, two teaspoonfuls to six pints and a quarter] almost invariably remarkably *diminishes* within a minute *the work done by the heart*; blood containing one half per cent., that is five parts in a thousand [or four teaspoonfuls to six pints and a quarter], *always diminished it*, and may even bring the amount pumped out of the left ventricle to so small a quantity that it is not sufficient to supply the coronary arteries."

Professor Martin estimates that an ordinary, and what would be regarded as a moderate, drink of brandy or whiskey, containing half an ounce of pure alcohol, or an ounce of the whiskey or brandy, would supply to the blood of an ordinary sized man the proportion of two and a half parts per thousand, the quantity he always found diminishing so positively the force of the heart's action, as tested upon the heart of the dog by instruments of precision. The results of these experiments have not been contradicted by any other experiments of a similar character, and they conclusively prove that

the direct action of alcohol on the heart is *paralyzing*, and not stimulating.

It is true that alcohol often, indeed generally, increases the *frequency* of the heart's action but not its *force*, when in a previously healthy state; except perhaps in cases where it excites feverishness, which is a diseased condition. Great frequency of the pulse is an evidence of weakness rather than of strength.

These conclusions of scientific experiment are not contradicted by correct observations upon persons. In faintness or depression from the shock of an injury or great suffering, a dose of alcohol, like a dose of opium, or the inhalation of chloroform or ether, by relieving the shock or the suffering, will often temporarily increase the action of the heart, by its soothing action through the brain and nerves; but this action is indirect and not permanent, and when no morbid condition is present to be relieved by its anodyne action, the alcohol, like opium and chloroform, produces depression and diminishes action. Either of these articles may relieve a sense of weakness without producing strength.

The temporary effect of alcohol in relieving shock, and the relief it often affords to the feeling of fatigue, together with the slight and brief excitement it sometimes produces when first taken into the stomach, have given and keep up the notion of its essential stimulating effect upon the heart, which is so positively disproved by direct experiments and accurate observations. There is an instrument called a sphygmograph which, when applied over an artery, as to the pulse at the wrist, accurately measures and records the force with which the heart sends the blood through the vessel. It is proved by this, as well as by the experiments on animals, that a healthy heart has its force diminished, rather than increased, by alcohol taken into the blood and carried to it. It is well known that extreme doses arrest the action of the heart, and the person dies with this organ paralyzed and distended.

But in corroboration of these more conclusive experiments we have the opinions of those who have most carefully investigated the action of alcoholics upon the human body, and especially upon the heart, by the common methods of scientific observation. No man has given this subject more careful attention than the late Dr. Anstie of London. He concludes his statement respecting it by the following declaration: "A general review of the phenomena of alcohol-narcosis enables me to come to the distinct conclusion, the importance of which appears to be very great, namely, that (as in the case of chloroform and others) the symptoms which are so commonly described as evidences of excitement depending on a stimulation of the nervous system [and through it he might have added, on the heart] preliminary to

the occurrence of narcosis, are in reality an essential part of the narcotic, that is, the *paralytic* phenomena."

Facts in the personal experience of individuals, and in observations of large bodies of men, are quite as conclusive in proving that alcohol produces weakness of the body, including the heart, rather than strength. It is now well known and acknowledged by scientific men, that less muscular labor can be performed under the influence of alcohol, in whatever quantity, than without it. In the performance of great feats of strength and endurance, as in the case of Weston, the famous pedestrian, alcohol has been avoided; and in the harvest field and the workshop, and with contestants in ancient Roman games, the advantage has ever been with abstainers. The most conclusive tests have been in armies in severe marches, where accurate observations on a large scale have been made by intelligent medical and commanding officers. In all such tests, whether in hot or cold climates and seasons—in Africa, India, Russia, and Canada—in our own country, and everywhere it has been shown that those soldiers who abstained from alcohol could accomplish and endure more than those who indulged in it, however moderately or freely. In emergencies, those officers who allow its use at all, find that it must be given when the men have accomplished their day's work, and are resting after their labor. It may then blunt the sense of fatigue, and promote sleep, but, unfortunately, it lessens the power of work for the next day, and if its use becomes habitual, other mischief, as we shall see, will be done. The effects of the habitual or long-continued use of alcoholics upon the heart are similar to those upon the body at large. Whether taken in the form of beer, wine, or spirits, the general effect is, *lowering of vitality, degeneration of structure, and diminution of power*. That the heart is rendered more liable to undergo morbid structural changes, all pathologists know. As with the liver, it is more liable to become loaded with and obstructed by fat, and to undergo fatty degeneration. Its vessels, its valves, and its general tissues are more likely to be impaired, and its force abates at a much earlier period; and these effects are likely to be in proportion to the amount taken. In wine drinkers the condition called the "gouty heart" is a not unfrequent occurrence. The heart is then liable to attacks of severe pain, of irregular actions, and of sudden failure. It is often the seat of "misplaced" gouty inflammation; and gout, in whatever form, is always the result of indulgence in alcohol, either by the individual or his ancestors. The gout is unknown among peoples, such as the Mohomedans, who have never used alcoholics.

Notwithstanding the essential weakening effect of alcohol upon the heart, in those who have established the alcohol habit, as with those who

have established the opium or the tobacco habit, the privation of the accustomed indulgence is often followed by a feeling of depression, and sometimes of real weakness, which will be relieved by a repetition of the dose. No one supposes that tobacco is a strengthening article, and yet it increases the strength of an habitual user who has for a short time been deprived of it. It is so with alcohol when the habitual, but not an excessive, quantity is taken. This effect contributes to the false belief that it is a stimulating or strengthening agent.

I have occupied so much space on this subject, because of its great importance, and because of

the prevailing errors respecting it; and have treated it by reference to scientific experiments and medical authorities (which may seem better adapted to an advanced class of medical students than to young and non-professional readers) because there seemed no other way of conveying truths in a convincing manner, that are essentially scientific. Long established and prevailing error is not to be overcome by the unreasoning declarations of a single individual, without appealing to other authority, and to well observed and recorded facts. Technical language has been avoided as much as it seems possible to do in the discussion of a physiological subject.

ENTERTAINMENTS IN CHEMISTRY.

BY HARRY W. TYLER.

V.

"A GLASS OF WATER."

THE various every-day experiments in solution are familiar to all, yet we may find interesting features in the simplest. Let us take a teaspoonful each of four very common and apparently similar substances, powdered sugar, salt, flour and starch, and stir briskly in four glasses of water. The result would seem strange indeed, were it less familiar. While the flour and starch give opaque milky mixtures, the sugar and salt disappear entirely, leaving the water as clear and transparent as before. If now we taste the sugar and salt solutions we shall observe, in a single drop even, a sweet or saline quality, as the case may be. We know therefore that the particles of sugar and salt are scattered throughout the water, for we can taste, though we can not see them. In the other glasses we can still see the flour and starch, and though perhaps unable to distinguish the separate particles, we are sure they remain the same solid substances.

And further, if we allow all four glasses to stand for a considerable time, the starch and flour gradually settle to the bottom, while in the other glasses we detect no change, the water remains clear and without sediment. In explanation of this difference, we can only say that certain substances, we know not why, have the power of mixing with water so intimately that their particles become too small to be seen; apparently they cease to be solid, and become fluid and transparent. We should not however exaggerate the distinction; it is usually a difference in degree only. If we add more sugar and salt to

our solutions, we shall soon find that salt remains undissolved and finally sugar also. We therefore find that in a very small proportion of water sugar and salt are partially insoluble. On the other hand, many substances usually called insoluble may be dissolved if sufficient water is used. One well-known substance, calcium chloride, dissolves in one fourth its own weight of water, and even separates and combines with the water-vapor of the air, while calcium phosphate and others require many thousand times their own weight of water.

We will now ascertain if we can recover the sugar or salt which has become invisible. Add more sugar gradually to the first glass until no more dissolves on stirring. Warm this mixture, and a considerable additional quantity can be dissolved. We therefore infer that warm water has more solvent power than cold, and this is almost invariably the case. As warmth has increased the dissolving and holding power of the water, we may naturally expect cold to have a reverse effect. A practical test proves this. As the solution cools, solid sugar gradually separates from it. *But this gives us only a partial separation. Pour the remaining solution into a saucer, and allow it to remain for several days undisturbed in a moderately warm place. The water gradually evaporates and disappears. This, of course, the sugar cannot do; hence it finally remains as a solid crust. But we note one very important change — instead of the original powder, we have obtained a solid crystalline mass. With salt the result would have been similar.

It is a general law in the mineral kingdom that the particles of a solid substance when separated in a solution and then gradually brought together by

the slow removal of the solvent, have a strong tendency to arrange themselves in geometrical shapes, that is, to form crystals. The amethyst is crystallized quartz or sand, the diamond is crystallized carbon or charcoal, snow is crystallized water, or water-vapor. Many of these crystals, formed of and by mere lifeless matter, rival in beauty the fairest flowers. And the variety of crystals and crystalline substances is almost unlimited.

We can easily produce some interesting examples of crystals. First, make a strong solution of blue vitriol. Put this in a warm place, and a pebble or cinder suspended in it will become covered with fine blue crystals. Alum is soluble in its own weight of water, and crystallizes in eight-sided figures. Now mix equal parts of alum and blue vitriol, make a strong solution of the mixture, and allow it to evaporate and crystallize. The result is most interesting. We obtain a mixture, to be sure, of the two solids, but the crystals of one are distinct from those of the other, and with care we may separate almost completely the blue crystals from the white.

Thus the solid particles not only combine to form crystals, but they select particles like themselves to combine with, and jealously exclude all others.

We will now touch the practical side of the subject. About three fourths of the earth's surface is covered with water, the general solvent. And there are so many soluble substances in earth and air that pure water is unknown in nature. Of these substances in solution, salt is most abundant, and countless rivers are constantly dissolving it, and carrying it into the sea. But the water which rises from the ocean as vapor, to fall again as rain, must leave its salt behind. Thus the ocean has become very salt, and is slowly but continually growing more so. And although the *proportion* of dissolved matter is very small, a recent writer estimates that there is enough in the whole ocean, if it could be separated, to form a mountain-range certainly larger than the Alps, perhaps as large as the Himalayas.

Finally there is a most important practical lesson for us to learn. Our wells and ponds are supplied with rain-water, which gradually works its way through the soil, dissolving more or less of the materials in its path. And therefore if we allow dirty, or putrefying, or poisonous matters to lie in its way, the water will dissolve and carry along portions of them, we shall drink them, and with them, perhaps, the germs of disease or death.

BOYS' HEROES.

BY EDWARD E. HALE.

VII.

BAYARD.

THE Chevalier Bayard — without fear and without reproach — is on our list of heroes.

His life was worth writing and has been well written. He is most happy in the description which always accompanies his name, which I have translated. Many a person knows him as the *Chevalier sans peur et sans reproche* — who does not know where he lived, where he fought, or to what century he belonged.

He was the son of a loyal soldier who had lost his arm in battle. His education was conducted at Grenoble, under the eyes of his uncle, the bishop of that place — the brother of Bayard's mother. How many boys who read this would be well pleased were their education as simple? "It was completed," says his biographer, "when he was twelve years old, for he had then learned to read and to sign his name, and this was learning enough for a gentleman of those days." I am sorry to add that some of them, whose writing I have seen, signed their names very badly.

When he was only thirteen, he was presented to Charles, Duke of Savoy — the ancestor of the present King of Italy. The king was pleased with the boy, and made him one of his pages. He was in company with the duke at the city of Lyons once when they met the King of France, Charles the Eighth. The king liked him also, and asked the duke to give him to him, somewhat as you must ask for a fine dog or a parrot. The Duke of Savoy did so, and thus the young fellow entered into the service of one of the first princes of his time. That is, he was at the court of Charles, while his daily employments were those of a page of the Count of Ligny — Louis of Luxembourg who was a favorite of the king.

When he was only sixteen years old a Lyonese gentleman gave a great tournament in honor of the king. The page, Bayard, was determined to be there, but he had no horse, no arms, and no money to buy them. A friend of his, named Bellabre, advised him to go to his uncle — and I am not sure but that here is the origin of that slang phrase in which a person in need, who borrows money, is said "to go to his uncle." The uncle was goodnatured, and sent the two young

friends to his own "furnisher," with a note that he should do for them whatever they asked. The boys did not spare. They spent four hundred crowns each, which was thought an enormous sum. But the uncle was reconciled, when it proved that the money was well spent. For the Sire de Vaudrey himself, who had arranged the tournament, was overcome by the unknown young adventurer, and then when, according to the custom, with his visor lifted at last, Bayard passed before the ladies who looked on, they were all surprised to see that such great success had been won by Piquet. "Piquet" was the nickname the king had given him, as if one should call him "Spur." The king was the only person the young fellows had entrusted with their secret. He had not had a moment's fear for his favorite "Piquet." He said, "God grant to you what I see beginning; you shall be Prud-homme," by which he meant, "you shall be recognized as a leader of men," a prophecy which was fulfilled.

The times were the times for personal daring. Gunpowder had not wholly put plate armor and the customs of chivalry out of the way, but the end of them had all but come.

I am not sure but Dumas took the idea of his *Three Musketeers* from the inseparable alliance between Bayard, his friend Bellabre, and the captain of their company, whose name was Louis d'Ars. In 1493, they all crossed the Alps together with King Charles, who had undertaken the conquest of Naples. Bayard was twenty years old; and thus began the career of fighting, which he followed till he died at the age of forty-eight, with only very short interruptions of the days of peace. Like other soldiers, of that country and that time, he had various fortunes. But in all adventure he showed the unflinching courage which has given him his fame; and the stories told of him are exactly like those told in the romances of Arthur and of Amadis.

While the French were masters of most of Southern Italy, Bayard was made Governor of the city of Minervino. He was always in the saddle, as if seeking for adventure, and one day captured a convoy of the Spanish enemy, and secured fifteen thousand ducats. A Gascon officer claimed half the prize, as having assisted in the capture; but the court which heard the case refused to acknowledge the claim. The man grumbled about this, and said if he had had the money it would have enabled him to lead an honorable life for the rest of his days. "Is that all you need for valour and honour?" said Bayard, and exhibited the tempting ducats. "They are nice lozenges to work such a cure, are they not? I see you want to eat them, and you shall." So he gave the discontented officer half the money and distributed the rest among the soldiers.

But the end of the French occupation of Southern

Italy had come. The invasion which had begun as a gay promenade, ended after many years of success in a painful and laborious retreat. In this wretched business Bayard was the soul of the army, and showed himself a hero.

It was at the battle of Garigliano that he repeated the achievement of Horatius. He and a gentleman named Basco, were riding a little separated from the army. Suddenly they saw a body of Spaniards who were approaching the bridge over the Garigliano, which they meant to hold against the French army. Basco rushed to warn the French. Bayard remained and held the bridge alone. The four first knights who met him "bit the dust." The Spanish leader rushed forward, sword in hand, and fell dead. "Like a tiger set free, Bayard held the bridge against them all, so that his enemies thought that here was some devil, whom they could not believe to be a man." He held it till the French arrived in force enough to drive the Spaniards back, and thus saved the army. For this gallant deed he was permitted to add the figure of a porcupine to his armorial bearings with the motto, *Vires agminis unus habet*. "Alone he has the power of a host." The Pope Julius, after this, offered to make him his general-in-chief.

"I shall never have but two masters," said Bayard, "on earth the king of France, and my God in Heaven." And he returned with the army into France.

In 1510 Bayard was sent by the King of France to assist the Duke of Ferrara, some of whose dominions were claimed by the pope. The duke confided to him a plan for poisoning the pope, but Bayard was enraged, and told him he would himself inform the pope, if he did not renounce so base a scheme. In the siege of Brescia he was wounded; and after that city fell, he was carried on a litter to a house where a lady had been deserted by her husband, and was left alone with her two daughters. Bayard placed two soldiers at the door with orders to protect the house from all molestation, and gave to each of the men five hundred crowns, as his recompense for losing a share in the plunder of the city. When he was partly healed and was about to leave, the lady whom he had so served, fell on her knees before him and begged him to accept a present in token of her gratitude. Bayard smiled and asked how much the casket held which she pressed upon him. The poor woman, abashed, said, "Two thousand five hundred golden ducats, sir, but if this be not a large enough present, we will try to make it more." "No, madame," said the knight, "I do not wish any money. You have rendered me service far beyond what I could render you. I ask for your friendship and I hope you will accept mine in return." She was surprised by his courtesy, threw herself at his feet again, and said she would not rise until he accepted her present. "If you wish I will do so," said Bayard, "but am I not to have the

pleasure of bidding your daughters farewell?" When the girls came, he thanked them for their care of him, and said, "I would gladly give you some token of it. But soldiers have not often jewels to give away. Your mother has made me a present of twenty-five hundred ducats. I beg each of you to accept one thousand for a dowry, and I hope you will be my almoner in dividing the rest among the convents which have been pillaged."

Gaston de Foix is said to have lost his life at the battle of Ravenna, by rejecting Bayard's advice. In 1513, when Henry the Eighth of England routed the French in the battle of Therouenne, which took the name of the "Battle of the Spurs" from their rapid flight, Bayard was taken prisoner. He was covering the retreat, at a bridge with a few companions, and when he had secured this object, he told his friends that they must surrender. For himself, finding an English officer lying under a tree, a little way from the battle, he spurred up to him, pointed his sword, and said "Surrender, Sir Knight, or you die." The officer surrendered. But Bayard then said, "I am Captain Bayard, and I now surrender to you. Here is my sword." When a few days after, there was talk of ransom, Bayard claimed that the English officer owed him a ransom first. The question was referred to the Emperor and to Henry, who were glad to meet a soldier so distinguished as Bayard, and they recognized Bayard's claim, and decided that the two ransoms should offset each other.

Francis the First soon after became King of France, he made Bayard lieutenant-general of Dauphiny. Francis made another effort to reconquer Northern Italy, and Bayard accompanied him in the campaign. The battle of Marignan tested the young king and his companions in arms. When it was happily ended, King Francis asked Bayard to confer on him the honor of knighthood, a procedure, not without precedent, but quite reversing the ordinary custom. Bayard at first refused.

"Sir," he said, "he who has been crowned and anointed with the oil sent from Heaven and is king of a realm, so noble, the first son of the church, is already a knight above all other knights." The King replied, "Bayard, be quick." Then Bayard took his sword and replied, "Sir, it would avail as much as if it were Roland or Oliver, Godfrey or his brother Baudoin. Certes, you are the first king, whom knight ever knighted — God grant you may never take flight in war." Then looking playfully upon his sword, he said, "Thou art right happy to have given the order of chivalry to-day to so noble and powerful a king. Certes, my good sword, I will keep thee as a relic, guarded above all others, and I will never use thee except against Turks, Saracens or Moors." Then he made two passes with it and put it back into the sheath.

Bayard seems, however, in the course of everyday affairs to have been no courtier. He served his king in the saddle and in fight; but other men flattered him in court, amused him and took the honors. The historians agree that Francis lost his

cause against Charles the Fifth, his great enemy, because he entrusted his armies to incompetent generals. It was thus that after remarkable successes in Italy he lost all but honor, as he said to his mother, in the fatal battle of Pavia in the year 1525.

But he had lost Bayard the year before. Had he not lost Bayard he might not have lost the day at Pavia.

In the campaigns by which Francis attempted once more to secure Lombardy for France, Bayard served his king most loyally, and, where he was, France succeeded. But the king had intrusted his affairs to his favorite Bonnivet, an incompetent soldier. Bayard and his troops were driven out of Genoa, and when Bonnivet finally had to retreat into France, Bayard had to play again the same part he played in his youth, when the King of France did the same thing, and cover the rear.

As the army wound along the *Val d'Aosta*, the Spaniards attacked them; Bonnivet was wounded. Bayard again took command of the rear to save the army if it could be saved. He put himself at the head of the men at arms, and, animating them by his presence and example, to sustain the whole shock of the enemy's troops, he gained time for the rest of his countrymen to make good their retreat. But in this service he received a wound which he immediately perceived to be mortal, and being unable to continue any longer on horseback, he ordered one of his attendants to place him under a tree, with his face towards the enemy; then fixing his eyes on the guard of his sword, which he held up instead of a cross, he addressed his prayers to God, and in this posture, which became his character both as a soldier and as a Christian, he calmly waited the approach of death. The Constable of Bourbon, who led the foremost of the enemy's troops, found him in this situation, and expressed regret and pity at the sight.

"Pity not me," cried the high-spirited chevalier. "I die as a man of honor ought, in the discharge of my duty; they indeed are objects of pity who fight against their king, their country and their oath." He meant the constable, who understood him.

The Marquis de Pescara, passing soon after, manifested his admiration of Bayard's virtues, as well as his sorrow for his fate, with the generosity of a gallant enemy; and finding that he could not be removed with safety from that spot, ordered a tent to be pitched there, and appointed proper persons to attend him. He died, notwithstanding their care, as his ancestors had done, on the field of battle. Pescara ordered his body to be embalmed, and sent to his relations; and such was the respect paid to military merit in that age, that the Duke of Savoy commanded it to be received with royal honors in all the cities of his dominions; in Dauphiny, Bayard's native country, the people of all ranks came out in a solemn procession to meet it.

Bayard died April 30, 1524. Francis lost Pavia and Italy in February of the next year.

And now why is it that Bayard is on our list of heroes?

Mostly, I think, because rare good fortune attached to him the title "*chevalier sans peur et sans reproche*," "the knight without reproach and without fear." Many a knight has deserved such an honor.

Bayard had the honor given him in such phrase that men remembered it. Thousands of young Americans have deserved it better than he did. I do not think it is this particular man whom one chooses to honor or to love. But one does love this quality of courage, if it be not merely the courage of an unimaginative brute. Courage, if it be stainless courage, makes the true hero.

SEARCH-QUESTIONS IN AMERICAN LITERATURE.

BY OSCAR FAY ADAMS.

VII.

PERSONAL HISTORY OF AUTHORS.

121. Name several poets who have married poets.

122. Instance several poets who have been artists of note.

123. Mention at least two poets well known as sculptors.

124. What three Protestant Episcopal bishops have been poets?

125. What scientific writer received the title of Count from the King of Bavaria?

126. Mention several clergymen who have won notice as novelists.

127. What poet was noted for his intemperate habits?

128. Name two historians and a poet who have been Ministers to England.

129. What noted writer, married to an Italian nobleman, was drowned off the coast of Long Island?

130. What celebrated author started on a European tour at the age of eighteen with but one hundred and forty dollars?

131. What writer did not receive his baccalaureate degree from Harvard till he was seventy-eight?

132. Name several noted writers, not now living, who never married.

133. What noted poet published his first poems at the age of fourteen?

134. Name at least six distinguished writers who have been college presidents.

135. Instance two writers who have also been publishers.

136. What writer was the sister of an artist who became famous as an English painter?

137. What once noted poet has been an inmate of an insane asylum for over thirty years?

138. What theologian was the father of seven children who have achieved notice as writers; four being clergymen, one a celebrated novelist and one a famous pulpit orator.

139. What author placed over his study door as a warning to visitors, the inscription, "Be short?"

140. What three poets have at different times edited the *Atlantic Monthly*?

ANSWERS TO FEBRUARY SEARCH-QUESTIONS.

81. Mrs. Celia [Leighton] Thaxter.
82. Jonathan Edwards.
83. Major Theodore Winthrop.
84. Wendell Phillips.
85. Nathaniel Hawthorne, Ralph Waldo Emerson, Amos Bronson Alcott, Louisa May Alcott, William Ellery Channing, Henry David Thoreau, Franklin B. Sanborn.
86. Bayard Taylor.
87. Mrs. Anne Bradstreet, Mrs. Elizabeth Stuart Phelps, her daughter, Elizabeth Stuart Phelps, Mrs. Harriet Beecher Stowe.
88. Alexander Hamilton.
89. Washington Irving.
90. Francis Hopkinson, Joseph Hopkinson, Author of "Hail, Columbia."
91. Elaine Goodale, Dora Read Goodale.
92. James Fenimore Cooper.
93. Mrs. Lydia [Huntley] Sigourney.
94. Nathaniel Parker Willis.
95. Hannah Flagg Gould.
96. William Gilmore Simms.
97. Louis Jean Rudolph Agassiz.
98. Mrs. Harriet Prescott Spofford.
99. James Abram Hillhouse.
100. Francis Scott Key.

THE MAKING OF PICTURES.

BY SARAH W. WHITMAN.

VII.

WOOD-ENGRAVING.

IT is fit that we give serious consideration to engraving on wood, in our series on the making of pictures, for this department of picture-making is of great importance to-day, and has already played an invaluable part in the education of our own people. It is mainly by means of wood-engraving that most papers and magazines are "illustrated," as it is called; thus giving to written information a varied and graphic picture of the scenes or persons described also.

We shall trace its uses more fully as we go on to a brief investigation of this interesting branch of art-work. One hardly knows whether the method or the history of wood-engraving—its method and its history being so involved with each other—but it may be said to begin with, that as soon as one studies wood-engraving, one finds that it may be divided into several departments, or classes, having different aims. I shall not attempt to define these with any degree of detail; but ask you to notice for yourselves as we go on, that at all events there are two principal divisions, one of which attempts to imitate exactly what is drawn in pen-and-ink, while the other aims to represent by means of an engraving on wood, all sorts of pictures, whatever department of drawing or painting they may belong to. With this in mind let us look for the steps by which wood-engraving has reached its present condition.

In the chapter on etching, it was shown that the print, or picture, was obtained from a copper plate, by virtue of lines on its surface which had been cut or bitten into the metal. These lines when properly filled with ink would leave their impress upon the paper; that is, when there was a line on the metal, there would be a corresponding line on the paper and when the surface of the metal was left uncut, the paper would receive no impression at all. Briefly, the printing of an etching is done by the etched lines. Now exactly the reverse of all this is true in regard to wood-engraving. Instead of the engraved line doing the printing, it is done by the wood itself, which plays the part of a stamp, or die, in the same manner that letters are used in types. In types, indeed, lead or other metal is used, which are best for the innumerable repetition of small forms; but it was early found that wood was especially well-adapted to making

a block which would print well on large surfaces, and which could be easily cut. Very soon after the invention of printing, the practice of wood-cutting began; and very simple the process was. All that it attempted was to reproduce black-and-white drawing in line, and for this purpose the design was carefully copied on a smooth bit of wood, and all the spaces left white in the drawing were carefully cut away with a knife. This process reached a height of special interest when Albert Dürer and men of his school made many very splendid drawings, such as the famous "Melancholia," and others, wherein the lines were drawn with singular power and elaborate exactness; and the wood-cuts which were made from these drawings reproduced almost perfectly, the vigor and exactness of his work. But the men who cut the blocks at that time, and for long afterward, worked as at any other purely mechanical carving, endeavoring to make a faithful copy to be printed in black and white lines of the picture, which was already drawn in black and white lines also. In order to do this it was necessary to devise a method for expressing masses of dark shadow that in pen-and-ink were obtained by lines which crossed one another; and what was called "cross-hatching" was done. This consisted in cutting out with the greatest possible care each minute diamond-shaped spaces left among the lines, a very painstaking and wholly *industrial* process. Early in the present century, however, the narrow province in which wood-cutting had worked—and great is our debt to it for much that is beautiful and valuable—this province was enlarged by those who recognized the possibility of obtaining other and broader effects by the use of the same means. Using still blocks of hard wood cut across the grain (boxwood has been found to be best of all) together with little gravers or chisels, it was found how much that was brilliant and broadly effective might be achieved; wood-cutting became, as one may say, more picturesque. This involved the use of broad, dark, flat masses, and equally broad white spaces, with which to represent a greatly-enlarged range of subjects. At this period many reproductions of landscapes were made by wood-cutters who possessed much clever invention and also artistic gift, as well as the dexterous hand of the artificer—which gave a new impulse, and pictures made by these processes of wood-engraving excited a new interest.

It is very difficult without the pictures before

us to illustrate one's meaning, to describe the *intrinsic* qualities which a woodcut possesses; but it will help us to a definition, if we stop to remember that with wood-engraving we enter upon the domain of those graphic arts which do not belong to what is called "Fine-Art," that is the province of spontaneous original production—work which may be described as immediate and creative in the first sense—but to the province which seeks to represent by a fresh medium the productions of another. (Of course an artist might be also a wood-engraver, but this would be an exception to the rule; or rather it would in no way affect the working of the rule, as an artist must first draw his picture and then proceed to reproduce it on the wood, by those processes which in their very nature prohibit free fine-art work.) It is however most true that in the recent advances made in wood-cutting we find that not only does this art hold a place which is distinct from any other, but that also as in all the *best* industrial work, there is room for the expression of artistic sensibility, and sympathetic appreciation, on the part of the skilful and patient engraver. Proof of this may be seen in the latest contemporary work which has been done in America; for therein will be found points of such exceeding delicacy and subtlety, as to convey not only qualities of tone and color but even of texture; so that one may see for instance whether this woodcut was made from a water-color and that from an oil painting. There may be seen notable examples of work done in these directions by Closson, Cole and a few others, whose names are justly well known on both sides of the Atlantic.

Now having made this rapid survey of the ground traversed by wood-engraving, let us go back for a moment in review. The simpler cutting on ordinary board with which the art began, produced a great number of curious and interesting pictures. Beginning with the little initial letters in early books—rough work done in broad black lines, in the fifteenth century and from that period onward, till larger and important pictures were undertaken. But these large pictures were still done on the same simple principle of black lines printed on a white surface, with greater or less delicacy. What seems to have caused the change to fuller and freer work was the discovery that beside the facility which a wooden block or die furnished for making lines, it was also capable of making a peculiarly soft and yet forcible print of dark shadow in mass, with no lines at all in it. The difference between these two modes of availing of the art of wood-cutting would be not unlike the difference between pen-and-ink drawing and

drawing in charcoal; and you will find that from the time the change was made the wood-cut obtained a new source of power; and from that the transition was gradual until the present period of varied and most interesting work was reached. There is to be noticed here one point of advantage in the progress of wood-engraving for the *artist*; and that is, that in drawing pictures for illustration (that is those which are to be reproduced in wood-cut) he is not limited as to the method he employs. He may draw with the point or with the brush, or he may sketch in color, if he like; by whichever medium in short, shall seem the best for the expression of his ideas, knowing that the skilful engraver will be able to imitate with amazing cleverness his work. Sometimes the artist, especially if he be a very sure draughtsman, makes his drawing directly upon the block; in which case he assures the purity of his own lines up to the point when the graver begins to cut. John Leech made all or nearly all his drawings in this way, so that they were not copied subsequently upon the wood, but put there at first hand by himself; and we know his work in succeeding years of the English *Punch*, as full of brilliant and discriminating qualities.

It is, however, in some of our own magazines that we find specimens of the most excellent wood-cutting of to-day; for one or more of these is said to furnish the best illustrations in the world. The beauty and variety of wood-cuts in the *Century* is beyond praise, so far as the matter of engraving is concerned, while to this must be added the most extraordinary care in the *printing*; a thing only second in importance to the engraving. You will perceive that for this sort of printing the *paper* is of the greatest moment; what paper will possess such qualities as to give depth and efficiency to the print, at the same time that it is thin enough to be used to advantage in newspapers and periodicals is a question only answered by long and careful experiments. What is called "tone"—a term by which is meant that quality which preserves the harmonious relation of the blacks, grays and whites in a print—tone is of the first consideration if one looks at wood-cuts from an artistic point of view; and it is in this matter of tone especially, that our wood-engraving excels. To obtain it, it is necessary that not only the block should be cut with the greatest amount of knowledge, but that the printer should do his work with equal skill. The block, the ink, the paper, all need the utmost care; and it is to these as perfected by laborious experiment, that we owe to-day the charming results which may be seen in almost any number of our best illustrated periodicals.

C. Y. F. R. U.

REV. J. H. VINCENT, D. D., AND REV. J. L. HURLBUT, D. D., SUPERINTENDENTS.

MISS K. F. KIMBALL, PLAINFIELD, N. J., SECRETARY.

[This department, while not less interesting to the general reader, is especially set apart for the CHAUTAUQUA YOUNG FOLKS' READING UNION, the young people's branch of the Chautauqua movement for popular home education. It supplies a course of reading for young people which is intended to give them the most valuable knowledge in the most interesting manner. The Required Readings are issued simultaneously in WIDE AWAKE and the CHAUTAUQUA YOUNG FOLKS' JOURNAL; a few added books form the Supplementary Readings. The Union is under the direction of REV. J. H. VINCENT, D. D., and REV. J. L. HURLBUT, D. D., as Superintendents, in connection with the Editors of the magazines mentioned above. Any person, young or old, may become a member of the Union by sending his name and *ten cents* in postage stamps to the Secretary, MISS KATE F. KIMBALL, Plainfield, N. J., to whom inquiries for further information may be addressed.]

A LITTLE more than a year ago a young man of our acquaintance received as a Christmas gift an edition of Shakespeare in thirteen small volumes, known as the Handy-Volume edition. He determined to read it through, not as a business, but in odd moments, as he could pick them up while riding to the city on the train, or in the street-cars. He made no special effort to save time from other duties, and did not read Shakespeare at home, nor at his business-office, nor when he wished to read the morning paper or converse. His plan was simply to use in reading Shakespeare the leisure time to which no special occupation was assigned. Nearly all the plays he read twice, finding that a review aided to fix the characters and incidents clearly in mind, and four of them he read three times, from interest in them. At the end of thirteen months he had completed the thirteen volumes in this method of reading, without interfering with any other duties, and finding enjoyment in his task. We mention this not to recommend all the members of the C. Y. F. R. U. to read Shakespeare, for some of them are too young to appreciate it; but merely as an illustration of what can be done by saving and putting to use the spare minutes. The time taken from idleness to read a good book in the sum-total redeems many hours from waste and adds to one's wealth of thought.

WE are glad to learn that many local clubs of the C. Y. F. R. U. find it to their advantage to follow our outlines of topics in their meetings. We therefore suggest one upon the current readings on "The Children of Westminster Abbey." This article treats of persons who lived during the reign of King James the First, so that the history of England at that time may be approached through it.

1. The Stuart Family, and its Title to the Crown. This may be accompanied with a diagram on the blackboard showing the line of descent of James the First from Henry the Seventh.

2. The Reign of James the First. This article should treat of his character, the events of his life, and the noteworthy facts of English history in his reign.

3. The Great Men of the Time of James the First. Let the student find who they were, and for what each was famous.

4. The Cradle Tomb in Westminster Abbey. With this

might be read the poem referred to, from *Scribner's Monthly*, 1875.

5. The Story of the Princess Mary.

With this outline, a view may be obtained of England in a very important period in its history. Let no one think that American boys and girls have no interest in these subjects. Whatever relates to the "mother-country" is of value to us who live in the land recently called by an English writer, "Greater Britain."

WHAT is it that brings so many immigrants to live in America? It is not what the foreign newspapers say of this country, for generally their news is very meagre, and often it is far wide of the truth. Indeed, they say that in Germany the newspapers under governmental influence will omit favorable news, and insert all the accounts of riots, and murders, and crimes, in order to deter Germans from emigration. Yet the stream flows on constantly; what leads it? They tell us that the most potent influence is the letters received from relatives in America telling their friends at home of their success and prosperity, the farms which they own, the crops which they have raised, and the money which they have placed in the savings bank. The positive testimony of experience outweighs mere rumor or opinion, and brings millions to our shores. Now, as Captain Cuttle would say "the bearings of this lie in the application of it." If you want to bring others into the green pastures of the C. Y. F. R. U., tell them what a good time *you* are having, for it is the enthusiastic reports of those who have tried the course, that will lead others to try it. Speak a good word for the C. Y. F. R. U., dear fellow-students. Our numbers are large and growing, but we have room for a few more in the new settlement.

THE Associate Superintendent found that he had taken an extensive contract on his hands in promising to write answers to all clubs that sent him letters. If any find their answers not forthcoming at once, let them not be disappointed. Patience will have its reward, and your letter will receive due notice in its turn. We enjoy the correspondence, though it does make some demand upon our time; and it is pleasant to know of so much good work as is being done under the auspices of the C. Y. F. R. U.

Answers to Search-Questions should be addressed to Editors of WIDE AWAKE, 32 Franklin Street, Boston, Mass., with the words, "Search-Questions," in corner of envelope.

For titles of books to be given as prizes see the January number.

In reply to many inquiries: *We will receive answers to Search-Questions up to the date of the appearances of the printed answers, and will publish the names of senders, and allow prizes for correct complete lists.*

Complete lists of correct answers to the February Search-Questions have been received as follows:

C. Y. F. R. U. of Berlin, Mass. (Clara L. Shattuck, Sec.), Edith L. Johnson, Emma N. Metcalf, L. M. Alexander, Hurlbut C. Y. F. R. U. of Framingham, Mass. (F. B. Daniels, Sec.), Harry Grant, H. W. Bray, Fred L. Knowles, Charlotte D. Iles, Ida Foote, C. Y. F. R. U. of Quincy School, Lawrence, Kan., (Katie L. Riggs, Sec.).

Partial lists, and lists not wholly correct, have been received from the following:

Frank C. Hyde, S. Eddie Whittaker, George E. Bushnell, Mary F. Duren, Frances Sterrett, Carrie M. Dunn, Frank D. Field, Bessie Montgomery, C. Y. F. R. U. of Albion, Mich. (Harold Graves, Pres.), C. Y. F. R. U. of Westfield, N. Y., (Alice E. Holt, Sec.), C. Y. F. R. U. of Austin, Ill., (H. A. King, Sec.), Katie E. Bushnell, Charles G. Norton, Henry C. Chapin.

Varying answers were sent to question 85, so many authors having made Concord, Mass., their home at some period in their lives; but each answer included at least seven well-known names. Additional names to those given by Mr. Adams were also sent in answer to question 87.

In addition to those already credited, correct lists of answers to the Search-Questions in January readings have been received from the Star C. Y. F. R. U. of Albion, Mich. (Mrs. D. Fall, Sec.), Jessie E. Guernsey, C. Y. F. R. U. of Berlin, Mass. (Clara L. Shattuck, Sec.), Chaut. Gleaners of Lynn, Mass. (Dana A. Sanborn, Sec.), C. Y. F. R. U. of Norwich, Ct. (Clara E. Harwood, Sec.), H. A. Blackmar.

Additional partial lists of answers to the January Search-Questions have been received as follows:

C. Y. F. R. U. of Moore's Hill, Ind. (Henry Spencer, Sec.), M. Adelaide Love, Frances Sterret, Percy P. Salisbury, Ella F. Marsh, Bertha Hempstead, High School C. Y. F. R. U. of Petosky, Mich. (Loren A. Rice, Sec.), Edith Foulke, Rocket C. Y. F. R. U. of Lebanon, O. (Viola M. Mull, Sec.), Alma Keener, Carrie Hainman, Lena E. Swain, Susan H. Roche, Alice Underwood, Alice Woodward, Ernest C. Wheeler, May F. Camp, H. W. Bray, C. Y. F. R. U. of Nora, Ill. (J. S. Hubbard, Sec.), Emma N. Metcalf, C. Y. F. R. U. of New Leeds, Md. (Mary H. Settle, Sec.), Fred L. Knowles, Jessie D. Hammond, Belle M. Whelpley, Franc S. Hammond, Gertie Carnahan, Gertie Hendry, Hattie Stockham, Edith G. Newton, Fannie J. Packard, Mary E. Bidwell, Maud and Ethel Sanders, Harvey Bruce.

Among the gratifying results of the literary pastime introduced into our Chautauqua Readings in the form of Search-Questions, is the interest that teachers feel in the work, and the guidance and help they give to the children in the

"Search." One Sunday-school teacher in Michigan writes:

"I wish now to explain why I am secretary of our circle. I am teacher of a class of thirteen bright boys about fourteen years old, and have had them organized into a C. Y. F. R. U. since a year ago last October.

"This year the circle elected officers and chose me secretary, as they lacked confidence to take that office themselves at first. I hope to induce one of them to take it at the next election. The boys are much interested in the work, and I find it a great help to me in my Sunday-school work, as I can become better acquainted with my boys by meeting with them through the week, and so have more influence over them, besides being able to guide them in their reading. The boys meet every Monday evening, and do some essay-writing, besides looking up outside points relating to the reading. We vote this movement a grand one and expect to go through the course.

MRS. D. F."

The president of the Norwich, Ct., C. Y. F. R. U. writes: "We have thirty-five members, from twelve to seventeen years of age. We meet every Friday evening, the members being unwilling to "wait" two weeks for the meetings. We aim at variety in our programmes, having essays, dialogues, declamations, selected readings, chemical experiments, music, and games. Our meetings are held from seven to nine, the last half-hour being devoted to conversation, games, charades, or some form of entertainment. Twice we have had a magic-lantern. At an early date, a former United States Consul at Barcelona is to give us an address on 'An Arab School in Africa.' Our club has been much interested in a series of question-matches on the *History of Greece*. Sides were chosen for three months, and at the end of that time the defeated side gave the other a 'treat.' We have commenced the second quarter on the same plan. Sometimes in response to roll-call, each member gives a quotation from some designated author; sometimes a fact concerning the subject agreed upon for the meeting. The members are all much interested. All pronounce Miss Yonge's history very entertaining. The hints given for the last two months in the C. Y. F. R. U. department about the manner of conducting meetings are very helpful, and we hope for more.

H. S. B."

Many of the younger answerers write, "Mamma helped us," showing that the Search-Questions, as also other series of the C. Y. F. R. U. readings, have their interest for the older members of the household. Wherever mothers or elder sisters have taken the readings in company with the children redoubled interest, redoubled pleasure, and redoubled benefit have resulted; the home circle is the most delightful form of C. Y. F. R. U. circle.

One prize only has been awarded in the prize competition, "A Boy's Menagerie;" to James L. Morgan, Milford, Mass. Could the boys who read WIDE AWAKE see the life-like animals this prize-winner constructed and colored, they would be fired with enthusiasm and the spirit of rivalry to ask that this competition be again opened. The showman's "speech" accompanying each animal was entertaining, instructive and witty. Master James has well earned his prize.

THE WIDE AWAKE POST-OFFICE.

Of the "Western Story" in this number, "How I became the Rich Man of the Mountains," the author writes :

The Gulch spoken of is about fifty miles from Leadville, though of course at the time of the massacre, no such town was in existence. The account of the massacre is a true one and the principal events in the story are facts, related to me by the man himself, who for a time enjoyed the reputation of being the "Rich Man of the Mountains."

HEACHAM, Eng.

DEAR WIDE AWAKE :

So active and far-reaching are your sympathies that I feel sure you will enjoy a letter from one of the neighbors of our young English Prince Eddy whose twenty-first birthday we have just celebrated at Sandringham. I daresay you know that he was born on the eighth of June, 1864, at Frogmore House, Windsor Park, where his parents kept their first Christmas after their wedding. A pretty anecdote came to me the other day. A gentleman was driving through a German town with the Prince of Wales when Prince Eddy was studying at Heidelberg, and in passing a certain hotel, the Prince leaned forward, put his head out of the carriage window, and then said, "It was there, in that window, that I first saw the Princess; tell my boy to look at it when he comes here, and to think of his mother as she was then. I recall it with great happiness now." Prince Eddy greatly resembles this lovely mother, indeed the upper part of his face is exactly hers, but he lacks the fascination of her bewitching smile.

The morning of the eighth was all that could be desired for a birthday celebration. A sharp frost during the night had silvered all the young firs and drooping birches of the extensive plantations that surround the royal residence, and when the wintry sun shone forth, as it did a little later, it turned all the frost wreaths to dazzling crystals. The deer in the park strolled down to the water to find it covered with ice; and the ducks waddled away from the banks in disgust. The bells of Dersingham church rang forth merrily, and carriages bearing the officials who were to present the various addresses, rolled through the great iron Norwich gates into the avenue that leads up to Sandringham House. At these gates stood a group of the Prince's beaters, known by the red bands round their wide-awakes, or billy-cock hats. The royal keepers, too, were resplendent in their gold badges and new corduroys. The deputations were received by the Prince and his parents, and the various addresses responded to. One could not help but be struck with the homely and hearty character of this birthday celebration. Save for the telegrams and addresses which made their way to the simple country residence of our future king and queen from all parts of the world, it might have been the coming of age of any ordinary young nobleman, instead of that of the heir to a

sovereignty on whose dominions the sun never sets. Our Prince and Princess are especially simple in their tastes, and home-loving, and never was this fact more conspicuous than on the Royal birthday.

Some surprise has been expressed that the performance of a circus company should have been made a feature of the day's enjoyment; but I think it is but another proof of the sympathetic comprehension of the Prince of Wales of the tastes and capacities of all sorts and conditions of men. He is surrounded here by a rural tenantry, a large proportion of whom are school children, and to these what could afford more enjoyment than a sight of the prancing steeds, and make-believe lords and ladies who rode them, with the grand triumphal cars, and noble beasts from Egypt and India. The Prince understood this when he sent his cordial acceptance to Mr. Sanger, when he offered "as a mark of loyalty and respect to the Prince of Wales and family," to bring his company and give a free entertainment to the tenantry and visitors on the Sandringham estate. They were stationed at Norwich, so it was not much of a journey from there to Sandringham.

The avenue presented a very gay appearance when the band of the approaching circus was first heard. The trunks of the trees were already festooned with colored lamps for the evening illuminations. The drive on either side was lined with the pretty bright figures of the Sandringham and West Newton school children; first a red-frocked girl, then a dark-coated boy, for "ilka lassie had her laddie." Big baskets of goodies had been carried along the lines, and generously served out. There, too, were all the labourers and keepers resplendent in their Sunday best. And, in the portico, in front of the hall, stand the genial Prince, and our lovely Princess, with their gallant sons, and three young daughters simply dressed in frocks of brown cashmere. In the evening Princess Louise, the eldest, is to don her first dinner-dress in honor of her brother, a lovely gown, simple and girlish in style, made of white satin and *soie de Chine*.

With a blast of trumpets and beating of drums, in through the great gates the "grand cavalcade and grand procession" sweep. The sun shines brilliantly on the golden chariots, and upon the horsemen as they ride in brave array, it touches up the armour of the knights, and brings out the gay colors of the ladies' equestrian costumes. And the royal party seem to enjoy the show as much as the school-children, who look upon it out of wondering eyes. The band chariot, the Liliputian ponies, the performing horses, knights, ladies, camels, and elephants pass in stately measure before Sandringham House, across the Lynn road, to the Admiral's Walk, where the circus has been prepared for the performance in the afternoon. Then follows dinner for the labourers, and buns and oranges for the children, and the birthday presents are inspected, with the big birthday cake.

In the afternoon the Royal family and their guests walk across the park to see the performance. Admittance is free,

the marquee is crowded. Under the Lion and the Unicorn sit the Royal Party; the scarlet-frocked school-children are close to the arena. They look like a lot of little Red Riding Hoods, but the wolves are not there. One of them shakes hands with the clown, and touches the trunk of a real live elephant, the animal which has just filled her with a wondering awe by standing on two legs with the most perfect *sang froid*. Can she ever forget this day? Probably the memory of it will be handed down to her children and children's children, when Prince Eddy is king. This suggestion involves so much that I have not the heart to contemplate. Whether I have the heart or no, Time will roll on just the same, and the changes he brings are inevitable. I trust there will be no change of any importance for yet many years. I look upon the hale figure of the Prince, and the blooming face by his side, which appears more like that of the sister of Prince Eddy than his mother, and I think of the widowed Queen at a distance, and fervently repeat the familiar line—"Long may she live and reign!"

In the evening there is a grand ball, at which the Princess is glorious to behold in red satin brocade, and a magnificent tiara of diamonds. Lively Prince George has to subside altogether on this occasion; no amount of good-humored chaff can oust his brother from the post of honor at the beloved mother's side, it is his by right to day.

The two princes, it is said, are shortly to make their *debut* as authors, by the publication of a joint account of their travels in the *Bacchante*, compiled from the diaries which they kept while journeying round the world. It is rumored also that Prince Eddy will make a very extended tour through Europe shortly, and I see that it is more than probable that he will pay a visit to the United States, where I am sure as cordial a welcome will be given him as was given his father before him.

Ever, dear WIDE AWAKE, your devoted admirer,
"AUNT MAGGIE."

SOUTH ACTON, Me.

DEAR WIDE AWAKE:

In answer to Eva's question in the November number, I think she is wrong; the entire length of the Mississippi is four thousand three hundred and fifty miles. The Nile being only four thousand miles.

NELLIE.

N. ATTLEBORO, Mass.

DEAR WIDE AWAKE:

I have taken you two years and enjoy reading you very much. I think you are the best magazine ever published for young people. I have been a member of the C. Y. F. R. U. for two years and have succeeded at last to induce two or three to join. There are lots of boys and girls here but there is so much light reading here in the shape of dime novels, story papers and the like that they can find no time or money to spend for it. This is a large manufacturing town where they make jewelry, and it is not all brass as some suppose; but a good many of the firms make solid

gold, plated gold and silver, and all kinds. This is my first letter to you and hoping that it will not be thrust into the waste basket, I remain one of your constant readers,

W. B.

CAMDEN, N. J.

MY DEAR WIDE AWAKE:

I have taken you ever since 1878 and like you very much, but this is the first time I have written to you. I would like to exchange a collection comprising a rare sword-fish's sword, captured in the North Atlantic Ocean, relics from England, China, minerals, etc., with a list of the things all well labelled, and six numbers of *St. Nicholas* in good order, with a package of foreign stamps comprising Sardinia, Hungary, Italy, etc.—all for a self-inking printing press with types in good order.

And also six numbers of *St. Nicholas* in good order for an Indian tomahawk.

Address,

JAMES HAWES,
Care of Judge G. P. Hawes, New York City.

BROOKLINE, Mass.

DEAR WIDE AWAKE:

I have taken you for some years as a birthday present. I go to a private school, and the other day some clothes which were taken on the Relief Expedition sent out for Lieutenant Greeley and not used, were brought out to school. Everything is made of reindeer skins—the trousers, shirt and hood. It is very, *very* thick and coarse. They sleep in a great sack made of reindeer skins with the fur turned inside. There is a flap at one end where they get in, and they fasten this down when they are inside. Sometimes the moisture of the men's breath would freeze on the flap and the poor fellows were so weak that they could scarcely open them. They have high fur boots and great rubber shoes. This seems rather dainty, but if they should get their feet wet they would freeze instantly. A gentleman commanding a whaling vessel told a friend of mine that he was once wrecked on the coast of Greenland. The Esquimaux were very kind to him. These people have very queer habits. Their knowledge of common objects is so limited that they have very few words. They have no family names, and call their children "Kettle" and "Tub," and "Pot." Please publish this as I want to surprise some one very much.

F.

DEAR WIDE AWAKE:

I thought I would write you a letter, and I hope it will be printed, for I want to surprise my sister. Uncle Win has given you to Milly and me three years. I have been sick this winter, and the doctor thought some gymnastics would be good for me. I have been practising some of those in the "Health and Strength Papers," and have succeeded in doing some of them. I liked "In No-Man's Land" and "Pansy Billings" about the best of the stories.

WINIFRED WILLIS.

PRIZES FOR MERITORIOUS WORK.

To members of the Chautauqua Young Folks' Reading Union:

The Publishers of the C. Y. F. R. U. READING COURSE desire to show their pleasure in the high aims and praiseworthy perseverance of the members of the Union, most of whom have taken the three annual courses of Readings already published. Therefore they have decided to offer in connection with the next course,

Four Series of Prizes to the C. Y. F. R. U.

Each of the four series will consist of four money awards. (*sixteen prizes in all*):

\$10.00, \$5.00, \$3.00, \$2.00.

FIRST SERIES. In *Ways to Do Things*, in the Oct. '84 numbers of WIDE AWAKE and the CHAUTAUQUA YOUNG FOLKS' JOURNAL, Sarah Orne Jewett writes concerning "Town Clerks," proposing that every young person become a Town Clerk by making and preserving a record of all important and interesting events which take place in the town. The Publishers believe her suggestions will produce good habits of written expression, of observation also, and induce young people to take an intelligent and thoughtful interest in social and public affairs; and accordingly they offer Four Prizes of \$10.00, \$5.00, \$3.00, and \$2.00, respectively, to the writers of the four best Records or Neighborhood Diaries which shall be sent them by January 1, 1885. These records may be more or less historical or of current events only. The competitors must be Members of the C. Y. F. R. U., and not over eighteen years of age. Clearness, vivacity and conciseness of narrative, and good penmanship, will be taken into consideration. The prizes will be awarded and sent February 1, 1885. The names of the Winners will be announced in the March numbers of WIDE AWAKE and the JOURNAL.

SECOND SERIES. In the Nov. '84 numbers of WIDE AWAKE and the CHAUTAUQUA YOUNG FOLKS' JOURNAL there will be published, in *Ways to Do Things*, an article entitled "A Boy's Menagerie," which gives full directions for the manufacture of tent, cages and animals. To the four Members of the C. Y. F. R. U. who send the four best Collections of Animals which they themselves have drawn, colored and mounted, together with a set of Showman's Speeches concerning these animals, the Publishers will award Four Prizes, of \$10.00, \$5.00, \$3.00, and \$2.00, respectively. They will take into consideration good drawing, truth of coloring to nature, and the knowledge of natural history shown in the "speeches," also the wit and humor, also correct composition and good penmanship. Both boys and girls may compete, and competitors shall not be over fifteen years of age. This competition will remain open until February 1, 1885, and prizes will be awarded and sent March 1, 1885. The names of the Winners will appear in the April numbers of WIDE AWAKE and the JOURNAL.

THIRD SERIES. In the October 1884 numbers of WIDE AWAKE and the CHAUTAUQUA YOUNG FOLKS' JOURNAL, Rev. Dr. Edward Everett Hale begins a series of articles, *Boys' Heroes*. All boys, all girls, have their heroes, beings whom

they delight to dream about, beings who have achieved resplendent greatness or goodness, whose names they thrill with generous pride and admiration to hear. Dr. Hale, in making his list of twelve heroes, consulted with several boys and girls; but he could not hear, one by one, from the multitude. The Publishers here offer to the writers of the four best Essays, entitled "My Favorite Hero," Four Prizes, \$10.00, \$5.00, \$3.00, and \$2.00, respectively. The writers must be Members of the C. Y. F. R. U., and under eighteen years of age. Excellence of style and soundness of thought will be considered, also penmanship. This Competition will close March 1, and awards will be made and sent April 1, 1885. The names of Winners will be published in the May numbers of WIDE AWAKE and the JOURNAL.

FOURTH SERIES. There is a growing interest felt in handiwork,* by both boys and girls. The use of tools, in the construction of articles decorative and useful, is becoming a valued accomplishment. To encourage this taste, the Publishers offer Four Prizes of \$10.00, \$5.00, \$3.00, and \$2.00, respectively, for the four best Original Designs for any useful or decorative articles which can be made, presumably, by persons under sixteen years of age. These designs shall consist of the needful diagrams, accurate in shape and size reductions, definite descriptions of materials, and plain working directions. Housekeeping and furnishing conveniences, whether manufactured with "tools" or with needle, and appliances for out-of-door life and sports, will be considered in preference to articles purely decorative. Should any of the essays in this series be esteemed desirable for use in WIDE AWAKE or the JOURNAL they are to be the property of the Publishers for that purpose. This competition is open to all members of the C. Y. F. R. U. under twenty-one years of age, and to them only. It closes April 1, and prizes will be awarded and sent May 1. The names of the Winners will be given in the June numbers of WIDE AWAKE and the JOURNAL.

Offer Extraordinary!

A special Book Prize possible to ALL COMPETITORS!

In addition to the announcements of Prize Winners in the March, April, May and June numbers of WIDE AWAKE and the JOURNAL, there will be published in these numbers the names of all competitors whose efforts deserve *Honorable Mention*, and to all who win this distinction will be mailed, at the times of sending the money awards, a volume of the popular Young Folks' Library: to the boys, *Tip Lewis*, by Pansy; to the girls, *Margie's Mission*, by Marie Oliver.

Competitors must be subscribers to WIDE AWAKE or the JOURNAL.

All letters and packages must be fully prepaid, and addressed to D. Lothrop & Co., 32 Franklin St., Boston, Mass., U. S. A., and must be accompanied by the address of sender *within the parcels*. All matter accompanied by stamps and request for return will be returned to the authors at the proper time.

* See "A Boy's Workshop," C. Y. F. R. U. Course for 1883.

ANNOUNCEMENT

OF THE

**NAMES OF THE WINNERS IN THE
SPECIAL PREMIUM OFFER
OF SEPTEMBER, 1884.**

Owing to numerous requests we have decided to publish the names of the winners in the special premium competition which ended October 1, 1884. Miss Nana L. Pratt, Carlisle Barracks, Pa., sent the largest list of WIDE AWAKE subscriptions. Clement M. Reagan, Morris, Ill., and Miss Jeanie B. Lewis, Pittston, Pa., sent the two largest lists of PANSY subscriptions. Miss Nana L. Pratt, Carlisle Barracks, Pa., and Miss Rosa Worthington, Columbus, Miss., sent the two largest lists for both OUR LITTLE MEN AND WOMEN and BABYLAND.

**EVERY SUBSCRIBER SHOULD READ THE
FOLLOWING**

SPECIAL PREMIUM ANNOUNCEMENT.***A Grand Book for Boys!***

TIP LEWIS AND HIS LAMP, by Pansy.
In purple cloth binding, stamped in
silver and gold. Price \$1.50.

This beautiful story will be sent as a present to any subscriber who will send us one new subscriber for THE PANSY (at \$1.00) and one new subscriber to BABYLAND (at 50 cents), within the next 30 days.

MARGIE'S MISSION.

BY MARIE OLIVER.

An exquisite story for Girls. Cloth binding stamped in silver and gold.
Price \$1.50.

This beautiful volume will be sent to every subscriber sending us one new subscriber for THE PANSY (at \$1.00) and one new subscriber for BABYLAND (at 50 cents), within the next thirty days.

The subscription will begin with the volume unless otherwise specified.

Let all of our earnest and energetic boys and girls set to work at once and they will have no difficulty in securing the two subscribers necessary to secure the handsome volume promised. A sample copy and prospectus to show sent free.

D. LOTHROP & CO., BOSTON.

FRANK SIDDALL'S OPINION.

Frank Siddall's name has become a household word wherever purity in soap is prized and washing-day is robbed of its old-fashioned terrors. By the introduction of the soap which bears his name, he has won a place in the grateful hearts of the women of America. The opinions of a man as shrewd and observant as Mr. Siddall is known to be are well worthy of consideration in forming judgment on a matter into which he has examined.

Whether in a throng of invited guests, as at his "Silver Wedding," or in the quiet comfort of his cosy home, it is pleasant to spend an evening with Mr. Siddall. Desiring to learn his views concerning an important question of health, a reporter for the press called upon him at his pleasant home in Philadelphia, and passed an hour with him and his family. To look at Mr. and Mrs. Siddall and their son, nobody would suppose that they had ever been invalids. Yet they have, and all three of them owe their present health to—

Well, let them tell the story.

"No," said Mr. Siddall, "you would hardly think my wife an invalid. Certainly she has not an emaciated or feeble appearance. But some time ago there appeared on her side something which seemed to be a tumor. Two of her relatives had died of cancer, and she feared she was to be a victim of that terrible malady. The tumor, or whatever it was, increased in size and painfulness, and we feared the necessity of a surgeon's knife as a last resort.

"But we tried another method. I had long known of Compound Oxygen. It had never made any impression on my mind until, after a good deal of disbelief, I had tried it for my sick headaches. With close application to a largely increasing business which took my whole time and thought, I had become a martyr to this distressing complaint. It seems strange that such an invisible agent as the gas which is inhaled through a tube could make its impress on that condition of the system which produces sick headache. But it did. After taking the Office Treatment I found complete rest from brain weariness and entire exemption from the nausea, and the harrowing pains which make up that very unpleasant combination known as sick headache. I became an entirely renovated man in my ability to attend to daily business. I had also, for a long series of years, suffered severely from constipation. The Compound Oxygen Treatment completely removed this trouble.

"So we concluded to try Compound Oxygen for Mrs. Siddall. Dr. Starkey after a careful examination pronounced the abnormal growth to be something entirely different from cancer. In even the short space of a few days the effect was perceptible. Compound Oxygen was doing its work on the blood. The poison in the circulation, or whatever it was that had caused the growth of the lump, was driven out of the system. Most of the hard growth was absorbed into the circulation, and thus carried away. The hardness departed. Something like the core of a boil came out painlessly. Within four weeks from the time she began to take the Compound Oxygen, the lump was gone, and the flesh had healed and become as natural and healthy as that on any other part of the body.

"Mrs. Siddall is now as able as ever to attend to her regular duties, which she heartily enjoys. She is a wonderful help to me in my extensive business, being at my office every day, transacting with great efficiency the affairs of her department, which consists in the supervision of the twenty lady clerks."

"And how as to your son, Mr. Siddall?"

"Well, he is now as hearty as need be, thanks to Compound Oxygen. His blood was impure. For years he was my cashier, with constant duty and heavy responsibility. It wore on him. His appetite was irregular and capricious. There were pimples and blotches on his face, indicative of the condition of his blood. There were dark spots under his eyes, and his general state was such that although he was not laid up in bed as a chronic invalid, there was danger that he would be. We tried him with the Treatment. Compound Oxygen soon did for him what it had done for his mother and myself. It renewed his blood and gave him a heartier vitality. The pimples, blue spots, and other indications disappeared. His skin became soft and natural. His appetite became regular, and his digestion, which of course had been impaired, was restored to its proper condition."

"Then, Mr. Siddall, you have no objection to be quoted as a believer, firm, thorough, and constant, in Compound Oxygen?"

"Believer! Why, I consider that in the discovery of Compound Oxygen there has been given to the world something as valuable and as notable as Jenner gave it in the discovery of vaccination. Believer! Why, see our family experience with it. Believer! Yes, so much so that I never lose an opportunity to send those of my friends who need medical treatment to Drs. Starkey & Palen, and all that I have heard from are enthusiastic in their approval of it. You cannot speak too highly of Compound Oxygen. You may give my opinion of it as strongly as you please."

Our Treatise on Compound Oxygen is sent free of charge. It contains a history of the discovery, nature and action of this new remedy, and a record of many of the remarkable results which have so far attended its use.

DRS. STARKEY & PALEN,

1109 and 1111 Girard Street (between Chestnut and Market), Phila., Pa.



THE CHILDREN OF WESTMINSTER ABBEY.

BY ROSE G. KINGSLEY.

VIII.

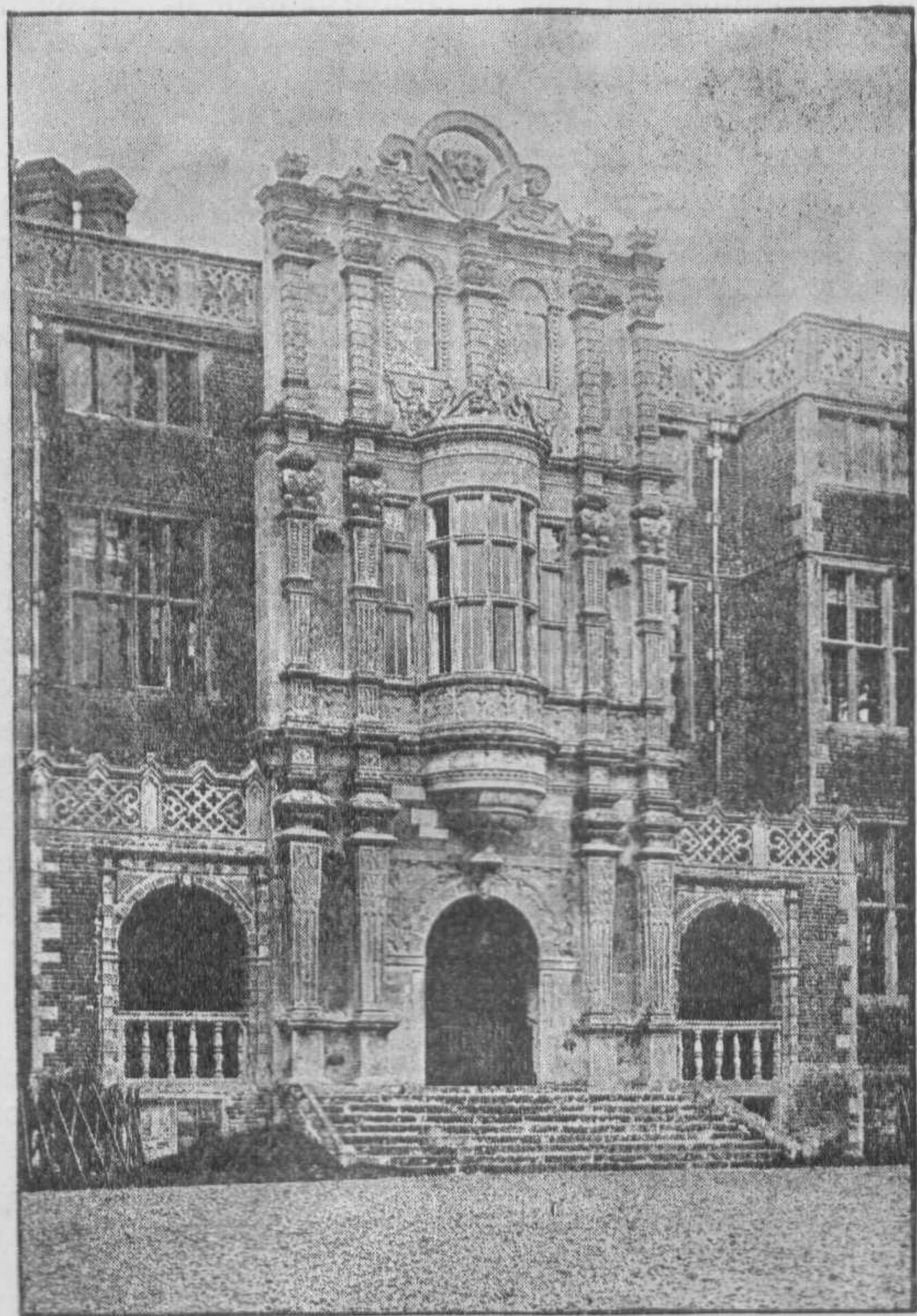
HENRY FREDERICK, PRINCE OF WALES.

AMONG the Hampshire moors, covered with sheets of purple heather and dark forests of Scotch firs, stands a grand old house built of red brick with stone facings. It is a noble mansion, with its saloons and libraries, its great hall where the Yule log burns at Christmas on the hearth of a vast fireplace, its wide oaken staircases, secret doors and passages, its "Long Gallery" running the whole width of the building, its wonderful ceilings fretted with patterns and pendants of plaster-work, its oak-panelled bedrooms, its attics big enough to house a whole regiment. Outside there are terraces and lawns of finest turf, where Troco and bowls used to be played nearly three hundred years ago, and walled gardens opening one into the other with beautiful wrought-iron gates of intricate pattern. The Virginian creeper climbs over the house, and veils the stone mullions of the deep embayed windows in a delicate tangled tracery of stems and leaves. Groups of tall red brick chimneys rise above the gables of the roof. And crowning the splendid western front—above the great entrance through a triple arched porch, above the exquisite oriel window that hangs out from the walls of the chapel-room—the Prince of Wales' three feathers, the badge that Edward the Black Prince won at Cressy, are carved in stone.

It seems a long way from Westminster Abbey to Bramshill House. But the two are connected in more ways than one with the young hero of our present paper. For King James the First began to build that fine old house as a hunting box for his son Henry Frederick, Prince of Wales. He brought those giant fir-trees from Scotland, that stand like sentinels on Hartford Bridge Flats and in Bramshill Park, and planted them in groups here and there as a memento of his northern home, little dreaming that they would take so kindly to the soil, and that millions upon millions of their self-sown children would turn the bleak moorland into thick deep forest.

The boy on whom the hopes of England were to

be centered, was born at Stirling Castle in 1594. He was christened six months later at Edinburgh—a guard of the youths of the city, well dressed, standing on either side, as Lord Sussex, who had been sent by Queen Elizabeth to the ceremony with a present of plate, valued at three thousand pounds, carried the baby to the chapel. The child was named by his father, "Frederick Henry and,



ENTRANCE TO BRAMSHILL HOUSE.

Henry Frederick;" and the Bishop repeating these names over three times, they were proclaimed by heralds to the sound of trumpets. The little fellow was confided to the care of Lady Mar until he was five years old, and a very hard time he

must have had. For "the severity of her temper, as well as the duty of her office, would not permit her to use any indulgence towards the prince." * But already, baby as he was, he gave signs of the sweetness of his disposition; for he showed not only reverence, but affection for the fierce old dame, and for Lord Mar, her son, who was his governor. When the Prince was taken from Lady Mar's severe care, he was given over to a tutor, Mr. Adam Newton, to whom he became greatly attached; and Lord Mar, Sir David Murray, and several lords, knights, and gentlemen made up his body of attendants. King James lost no time in teaching this little prince the duties and responsibilities of his station. The boy was scarcely six years old before his father wrote his book of "*instructions to his dearest son, Henry the Prince*," the best of all his works according to Bacon, who pronounced it "*excellently written*." These instructions are divided into three books:

the first instructing the prince in his duty toward God; the second in his duty when he should be King; and the third informing him how to behave himself in indifferent things, which were neither right nor wrong, but according as they were rightly or wrongly used.†

Before he is seven years old we find the child writing a letter in French to the States General of Holland, in which "he expresses his great regard for the States, and gratitude for the good opinion, which they had so early conceived of him, and of which he had received an account from several persons."‡ And on his ninth birthday he writes a letter to his father in Latin, beginning "*Rex serenissime et amantissime pater*," in which he tells the king what progress he has made, and how that "since the king's departure he had read over Terence's *Hecyra*, the third book of Phœdrus's *Fables*, and two books of Cicero's *Select Epistles*; and he now thought himself capable of performing something in the commendatory kind of *Epistles*."§ This is a good deal for a little boy of eight years old to accomplish. How would boys of 1885 like to do as much? They would probably prefer the other part of young Prince Henry's education. In 1601, when he was seven years old, he

began to apply himself to, and take pleasure in, active and manly exercises, learning to ride, sing, dance, leap, shoot with the bow and gun, toss the pike, etc., being instructed in the use of arms by Richard Preston, a gentleman of great accomplishments both of mind and body,||

who was afterwards made Earl of Desmond in Ireland. Prince Henry was devoted to these

manly pursuits as we shall see further on; and his fondness for them and his disregard of fatigue or exposure, helped, some thought, to bring about his untimely death.

In 1603, at Queen Elizabeth's death, the prince was nine years old. Before King James left Scotland, which he did immediately upon receiving the proclamation that raised him to the throne of Great Britain, he wrote a sensible letter to his son, telling him of the immense change in their fortunes, but warning him not to let this news make him "proud or insolent; for a king's son and heir was ye before, and no more are ye now. The augmentation that is likely to fall unto you, is but in cares and heavy burthens. Be therefore merry, but not insolent: keep a greatness; but *sine fastu*: Be resolute, but not wilfull: keep your kindness, but in honorable sort."* Excellent maxims; and it would have been well for the writer of them to lay them to heart as earnestly as his little son did.

The Prince and his mother, Anne of Denmark, followed the king to Windsor later in the year, spending a whole month on the journey from Edinburgh. This seems an absurd waste of time to us, who rush through in ten hours and a half by the Limited Mail, breakfasting at Edinburgh, and dining comfortably in London. However these Royal progresses were very slow and stately affairs. All the great lords and gentlemen whose places lay on the route, were honoured by visits. Their grand old castles, their beautiful new Elizabethan houses, such as Bramshill which I have described, or Hatfield, or Hardwicke Hall, were thronged with guests. There were hawking and hunting parties, masques and tourneys, and every sort and kind of amusement for the Royal visitors. And we can well imagine how interested the precocious young prince must have been in the novelty of this journey through the rich kingdom which he hoped to rule over one day.

The queen and prince arrived at Windsor during the feast of St. George, the patron saint of the famous order of the Garter. The little boy was made a knight of this most illustrious order; and astonished those present by his "*quick witty answers, princely carriage and reverent obeisance at the altar*,"† which seemed extraordinary in one so young and so ignorant of such ceremonies.

As the plague was increasing about Windsor, Prince Henry removed to the royal palace of Oatlands on the Thames near Weybridge. Here for a time his sister, Princess Elizabeth, lived with him. Few pages of history are prettier or more interesting than the story of Henry and Elizabeth's affection for each other. She was two years younger than her brother, a gay, sprightly girl, destined to a most troubled after-life, for she is best known to the world as "the unfortunate Queen of Bohe-

* Life of Henry, Prince of Wales. By Dr. Thomas Birch. p. 11.

† Birch. p. 16.

‡ Birch. p. 20. The letter is in the Harleian MSS. in the British Museum.

§ Birch. p. 21.

|| Birch. p. 21.

* Harleian MSS.

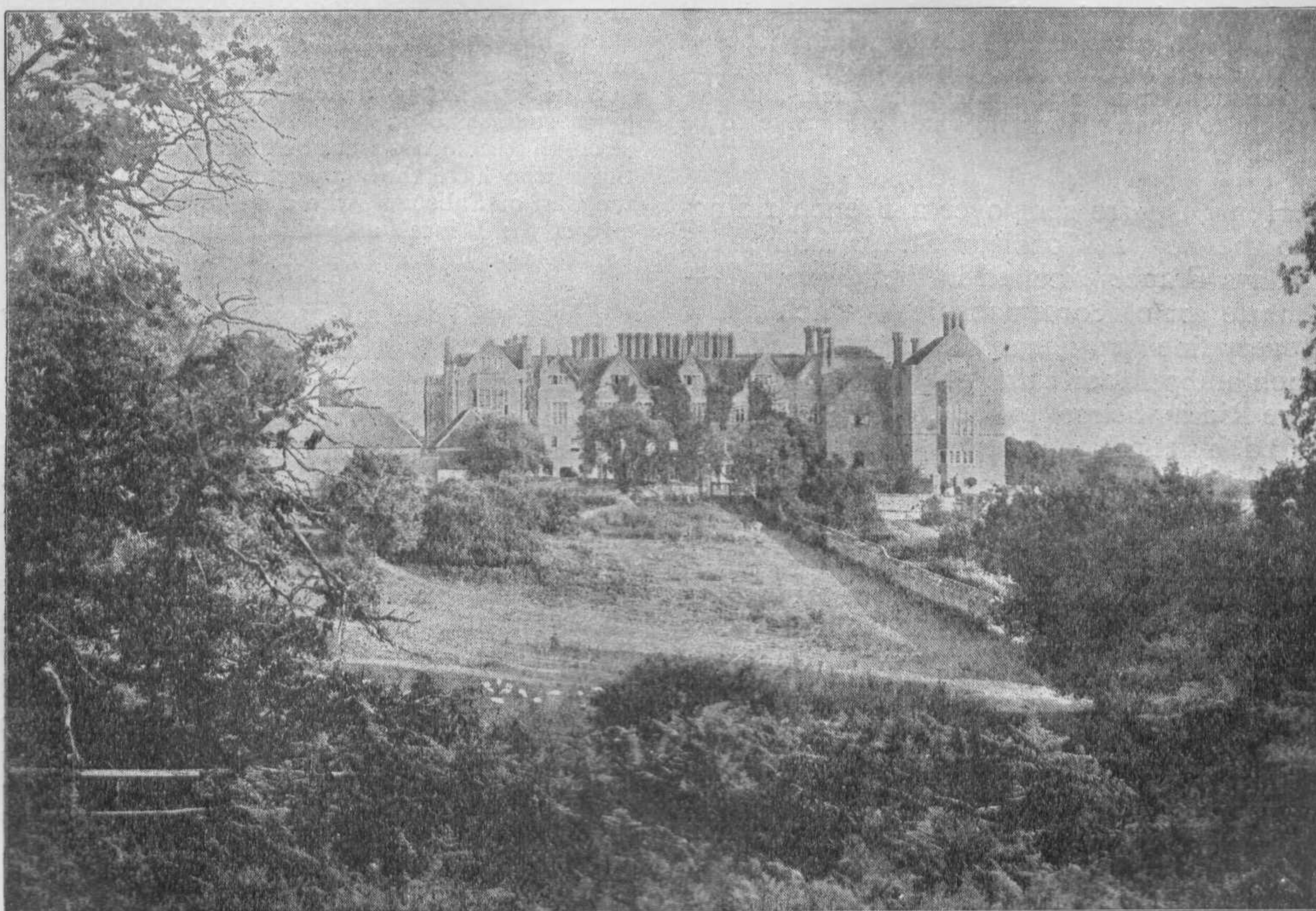
† Edward Howes' Chronicle. p. 826.

mia," grandmother of our English King, George the First. At sixteen she married the Elector Palatine, who was made king of Bohemia by the Protestant party in Germany, and thereby found herself in direct opposition to the Roman Catholic party, who, backed by Spain, supported the claim of Austria to the Bohemian throne. Poor Elizabeth, in spite of trouble and sorrow, poverty and the horrors of war, a fugitive and an exile, retained much of her gayety to the very end of her life; and some of her letters, even in her days of sorest need, are most amusing reading. But the letters that are chiefly interesting to us are those which passed between the young brother and sister in their happy youth, while Elizabeth was still a merry, light-hearted girl.

the care of good Lord Harrington, her governor. And the prince went to Wolsey's famous palace of Hampton Court,

where he resided chiefly till about Michaelmas of the year following, when he returned to housekeeping, his servants having in the interval been put to board-wages.

We now begin to learn something of the boy's tastes. So early as 1604 when he is but ten years old, he is looked upon as a patron of letters. Lord Spencer sends him a present of Phillipe de Comines' Memoirs from Althorpe, knowing his liking for solid reading. And he is given Pibracs Quatrains in French to learn by heart. He is already corresponding in Latin with the Doge of Venice, the



BRAMSHILL HOUSE, FROM THE NORTH.

The wretched system of which we spoke in our last paper, that of sending royal children away from home to be "boarded out" in the house of some great noble or gentleman, caused no little sorrow to this brother and sister. Prince Henry, as heir to the crown, was given a separate establishment in 1603, and for a time Princess Elizabeth was permitted to share it. When they went to Oatlands the king allowed them seventy servants; twenty-two above stairs and forty-eight below. This number was soon increased to one hundred and four, and later in the year to one hundred and forty-one—fifty-six above and eighty-five below. But this happy arrangement did not last long. The princess was sent to Coombe Abbey in Warwickshire, under

Landgrave of Hesse, the Duke of Brunswick, the Prince of Poland, and his grandfather, the King of Denmark. Then a year or so later we come upon a charming series of French letters between the prince and Henri Quatre, the famous King of France, who had a strong affection for the clever, high-minded boy, and foresaw how important his influence would be in Europe should he live. Prince Henry and the little Dauphin of France, afterward Louis the Thirteenth, were also warm friends, although they never met. When Monsieur de la Boderie came over to England as ambassador from France, he was charged with special messages to Prince Henry from Henri Quatre and the Dauphin. The latter begged the ambassador to tell the prince

that he cherished his friendship and often spoke of him and of the pack of little dogs which his Highness had sent him, and which he was very sorry that his Governess and Physician would not permit him to make use of.*

Poor little Dauphin! To have a pack of little dogs, and not be allowed to use them, must indeed have been hard. But he was not quite six years old then, so that perhaps he was a little young for field sports.

Prince Henry and his sister were both devoted to horses, and were bold and accomplished riders. When the Prince was hardly ten years old he wished "to mount a horse of prodigious mettle," and refusing the help of his attendants, who were greatly alarmed and tried to dissuade him from the attempt

he got up himself from the side of a bank, and spurred the animal to a full gallop, in spite of the remonstrance of those who stood by; and at last having thoroughly exercised the horse, brought him in a gentle pace back, and dismounting, said to them, "How long shall I continue to be a child in your opinion?"†

King Henri Quatre sent over a French riding-master to the boy, a Monsieur St. Anthoine, for in those days France excelled in the "*manège*" — the elaborate art of horsemanship — which was a part of every fine gentleman's education. When the French ambassador came over to England he went to the Riding School to see how Prince Henry was profited by his French teaching, and wrote to the French Secretary of State:

The Dauphin may make a return for the dogs lately sent him by the Prince; for St. Anthoine tells me, he cannot gratify the Prince more, than by sending him a suit of armour well gilt and enamelled, together with pistols and a sword of the same kind; and if he will add to these a couple of horses, one of which goes well, and the other a barb, it will be a singular favor done to the Prince.‡

The Spanish ambassador, hearing of this present, instantly tried to curry favor with the boy by telling him that a number of horses were coming to him

* Birch. p. 68.

† Birch. p. 385.

‡ Ambassades de la Boderie. Birch. p. 69.

from the court of Spain — for young as he was, this wily statesman saw the important part the Prince might play in the fortunes of Europe.

But Henry was loyal in his friendship to France; and waited with great eagerness for the Dauphin's horses and armour which speedily arrived. Monsieur de la Boderie writing again to France about the Prince, says:

None of his pleasures savour the least of a child. He is a particular lover of horses and what belongs to them; but is not fond of hunting; and when he goes to it, it is rather for the pleasure of galloping, than that which the dogs give him. He plays willingly enough at Tennis. . . . but this always with persons elder than himself, as if he despised those of his own age. He studies two hours a day, and employs the rest of his time in tossing the pike, or leaping, or shooting with the bow, or throwing the bar, or vaulting, or some other exercise of that kind; and he is never idle. He shows himself likewise very good natured to his dependants, and supports their interests against any persons whatever; and pushes what he undertakes for them with such zeal as gives success to it. For besides his exerting his whole strength to compass what he desires, he is already feared by those who have the management of affairs, and especially the Earl of Salisbury, who appears to be greatly apprehensive of the Prince's ascendant; as the Prince, on the other hand, shows little esteem for his Lordship.*

Here we have a fair picture of this twelve-year-old boy, who had already seen how to choose the good, and reject the evil. And everything we learn of him as he grew older only serves to confirm the French ambassador's estimate of his character.

He was a fine, brave child, regardless of pain and danger; liking an old suit of Welsh freize better than velvet and satin; obedient and dutiful to his parents, although he often disagreed with their opinions. And this was all the more creditable to him, for his mother openly showed her preference for his younger brother Charles; while his father was jealous and afraid of the noble-minded, truthful boy who would not countenance the scandals and evils of James's corrupt court. And here for the present we must leave him, and finish the story of the last six years of his life in our next chapter.

* Birch. p. 75. Ambassades de la Boderie. Vol. 1, p. 400.

SOUVENIRS OF MY TIME.

BY MRS. JESSIE BENTON FRÉMONT.

VIII.

THE TALENT IN THE NAPKIN.

WHEN the Government built a broad macadamized highway to connect the Ohio river and "western" travel with Washington, it was con-

sidered so fine a work that it was named "The National Road," and the public men connected with it made much reputation, and the contractors great fortunes.

The wife of one of these used to come for the winters to Washington, driving from her home near Wheeling in her coach-and-four. After the death

of her husband she came less often and in diminished state, but always with conscious importance.

She had special interest in me, and always repeated for me the story of her saving my life: how I, as a three-year-old child, had (on our way to St. Louis) been seized with such a violent attack of croup that my father had turned off the highroad into the nearest house—which was hers; how she instantly ran with me to where some boiling water was being used and gave me the saving hot bath—and how our people rested with her until it was again safe to take me on the journey. From which came our established attentions to Mrs. Crugar whenever she was in Washington.

Although she was not a congenial person she had a very clear mind, was remarkably well-up in national matters, and understood the reasons for our country's development. She was otherwise well-read also; but singularly without any sympathies. She had had no children, and though a *very* old woman when I was first grown she was perfectly healthy and hard and clear.

She had passed out of my mind until we were in Wheeling (West Virginia) in the early days of the war, where I had the surprise to learn she was still living and as clear-headed as ever though quite a hundred years old.

Her resolute living alone, with no one at all in her house—even all servants locked out at sunset—had given ground to certain distant relations to petition for a guardian to protect her and her property. The old lady asked to come into open court and prove her capacity. She came off with flying colors. It was made sure she was not only distinct as regarded the past, but as her memory of passing events was questioned she triumphantly told the Judge of a business-scandal with which his family name had lately been associated, and was let to go her own way unmolested.

We were told it was a risk to make the visit, for she was a few miles out of town, in a hilly country; but I was in a light carriage, and accompanied by the General and a party of officers on horseback; men who knew how to look out and what to do if attacked.

It was lovely May weather and everything in beauty, but no work was going on, for all the men were in one or the other army; you can't think how sad it is to see war in possession of homesteads.

Coming out of the high, close hills, we crossed a gay sparkling river and found ourselves in the meadows belonging to "The Stone House." All roads and paths were lost in the unchecked growth of many years and the long grasses smothered the sounds of wheels and horses as we drove quite up to the door. A long-closed door. The broad slabs of stone making its once handsome steps had sunk like old gravestones and lay awry upon each other.

It was a well-built house of dressed stone, very

large and solid, with the usual detached kitchen and long row of "negro quarters." From these poured out a shining-faced, fat, smiling black crowd—old and young—scary young ones holding on to their *mammies* and peeping around at our group of uniformed officers—"Linkum's sojers." They scattered so when first spoken to that I followed up a woman with a heavy baby and made her comprehend we only wanted to see Mrs. Crugar.

"Ole Mis'?"

"Yes. Go in and take this card. Tell her she saved my life when I was a baby and had croup *mighty bad*, and I want to see her."

She was afraid to venture in but we made her, and she ran back, radiant; we were to come in.

Going back to the front door we found "Ole Mis'" had had it unlocked for us and the slanting sun sent its yellow light upon the thick, thick dust of the broad long hall.

In a large library lined with books we found, seated there, the old lady, who knew perfectly all about me and understood why armed men rode down her glen. She talked wonderfully of the conditions that caused the war and of one inevitable result; but all with no interest or feeling, merely knowledge.

She was carefully dressed in rich black satin with a cap of beautiful old yellowed lace, with its big bows of orange and red ribbons on top, and broad strings of the same tied under her chin; the inevitable false hair, dark, was framed in with rich lace quillings. Her age told in the skin of face and hands which were like crimped parchment, but the lips were firm, and the eyes, deep-set in wrinkled lids, were still dark and keen.

She had in her hand a volume of the *Spectator*, which she said was writing she liked. Her old books were the only kind she cared for. "But I know all that's going on," she said; "I take a New York daily paper (the *Tribune* it was, as we saw by the pile on the table beside her) and the Wheeling paper." And when she wanted other information, "I send for my lawyer."

She never left the house and let no one come into it but for her few personal wants by day. Broths, eggs and milk, made her food; a bowl of milk and some bread was beside her on a small table—her regular supper she said, after which, at six o'clock, she locked the door and remained quite alone all night.

"But," I asked, "suppose you are ill?"

"Well, but I never am. Maybe you think I might die here all alone? So I might. But I have been alive over a hundred years and my time *must* come—and I might as well be alone then for nobody can keep it off."

She remembered her duties as hostess and said it might please "the young people" to go up stairs; there was a ballroom there and they might dance if they liked. "It's twenty-five years since I cared

to go up there," she said. "Sometimes I send the women up to clean but I don't know if they do."

(She looked after them with some interest then said, disapprovingly, "They are fine young men to be throwing their lives away.")

The young people found it so curious that they made me go up. The ballroom was across the whole front of the house, with many windows and a handsome carved marble fireplace at each end and deep closets either side of these fireplaces.

Like Queen Elizabeth, Mrs. Crugar would seem to have kept all her fine clothes. The whole walls were hung thick with dresses of silk and satin and velvet, "pelisses" trimmed with fur, braided riding habits, and elaborately trimmed mantles of queer rich damasked black silks; while the closets had endless bonnets and caps and turbans—those bonnets of tremendous size and fine leghorn straw costing from fifty to a hundred dollars, and their veils to the knee of fine old English lace; gold and silver India muslin and fine gold embroidered cashmere turbans. Such things made a museum of fashions from about 1820 to 1840. Then seclusion had set in.

There were treasures of good lace in shawls and lace veils of great length—lovely things for front breadths. Some were in old English Honiton, a charming refined lace; large capes with long sash-ends, in fine French needlework on muslin, and frilled richly with yards upon yards of Mechlin or spidery Brussels lace; and there was a shawl and some flounces of yellowed Spanish blonde which it was distracting to see unused. Some India scarfs were left—we fancied the shawls might have gone to the negro quarters.

The air of the room was still and dead—only light ever penetrated there. Adjoining was a bedroom with all things in perfect order—to the eye. The plump high feather bed and pillows had their fine time-stained old linen, and on the toilet table which had the usual dimity cover and hangings was a large pincushion. One of the officers accidentally rested his hand on this when to his shock it crumbled into flatness.

The world astir outside—civil war in full progress—here the silence of the grave before death.

It seemed inhuman to leave her so. She said we had best start, that we had four miles of hilly road and the country not safe; "and it's time for me to get to bed." But as we looked back through the sunset at the silent house and pictured that solitary old figure putting itself away for the night, we asked ourselves if *that* life was worth living? And, by way of answer, above the ringing trot of the horses and clank of "sabre and spur," rose cheerfully a round young voice singing out his favorite German war-song—

The bullets ring —
The riders shout!
We ride where Death is lying.

This "National" Road was after all only a broad macadamized turnpike from Washington to Wheeling where it met the Ohio and connected with all river navigation, down to New Orleans, and up to St. Louis and beyond; but to us it was vastly more than a road, for it was full of pleasures belonging to itself, and others that it led to.

St. Louis was so far that although my father went there every year the family could only go out on the alternate years when Congress adjourned in March. Now, one need give no thought to the two-days-ride in a Pullman buffet car. Then it was a matter of two-weeks-time, and many other considerations; the stage of water in the Upper Ohio being a deciding one. Also the return had to be timed to avoid the keen cold of the Cumberland Mountains. So that the years we could only leave Washington in June we went to Virginia to my grandfather's place (near Lexington); and while the grown-up people went to the White Sulphur Springs where all the branches of the family gathered in summer, I had the most ideal happy country-time alone with my grandmother.

Everything was so fixed and unchanging in that Virginia life that our constant travelling—though only at regular periods and between our homes in Washington to St. Louis, and the old home in Virginia—was in some way held almost as a reproach and matter for sympathy among the stay-at-home friends and relations. "*They* never did so." What people do not do themselves, whether from choice, or because they have had no chance to try, often seems to them a thing that is wrong to do. Hans Andersen has a telling little story on this: "Five little peas lived in a pod—the Pod was green and so were they." They went out to see the world and came back disgusted. "It was all different from what they were used to—even the sky was *blue*, not green like theirs in the pod."

We were well shaken out of our pod, I assure you, by all the varied life we led. And our sky was very blue and the sweet mountain winds deliciously exhilarating as we bowled along this fine road among the beds of blue mountains in the early spring. In sheltered nooks the green of early wheat and the pink of peach trees would make a lovely little picture, but the road led mainly among stern pine forests and upland wastes of stony lands. Great inns—"taverns" was the homely name—made the night stations, but solitude was the governing feature. There was life enough in our own little party.

My father would see that we had one of the best "reserved" coaches, while the heavy baggage was sent ahead. Our coach would be packed at our door in Washington, with such things as children might need for a week; for we only travelled from after breakfast until late afternoon; it was not changed, but we had fresh horses every ten miles as the mail stage had. It was most comfortable,

delightful "posting." My father who loved horses would often drive, and usually sat outside; and if we were *very good* we earned the privilege of "sitting by the driver" and seeing the four eager horses dash away as the black stable-men jumped back when they loosed their heads and cheered them off; that excitement over, came the talk of "upsets" and robbers and snowstorms — the literature of the stage-coach period.

Once on the Ohio, the "*Belle Rivière*," as its French explorers and masters fondly named it, a foreign atmosphere began to be felt. Life seemed easier and more gay already, than in the strictly English atmosphere of Virginia which also governed in Washington.

Already in Louisville, where we would stay over for a brief visit to relations, the talk was of their winter visits to New Orleans, and the Paris fashions, and the theatres and Mardi-gras and other festivities; and the very names of the servants were from what our black nurse with her Virginia prejudices called "that heathen talk" (*French*). That "Mis' Maria" (a widow past middle-age) should tolerate such a "heathen" name as *Polydore* for her butler greatly offended "aunt" Sarah's sense of right.

They have found in Australia that by planting common white clover on the border of the native grasses surely and steadily the clover will "eat out" even the deep-rooted native grasses and substitute its own little encroaching obstinate self; and so with English gravity and "decorum." It has conquered and eaten out every trace of the exuberant enjoying French life which still remained and flourished in my early day and made of New Orleans and St. Louis places as positively "foreign" then as any seaport and provincial town in France can be to-day.

The older people would not forgive France for giving them up to such antagonistic conditions, and generally they refused even to learn English. It *was* awfully hard on them. They were French, Catholic, and Royalists. By a scratch of the pen they were made one with all they had so long hated in the English, and to that was added our republican wiping out of all social distinctions. No wonder that in their ideas the term *American* included all evils, all disturbances, and increasing surprises of annoyance — including whole crops of American sons-in-law and grandchildren.

Sallow-faced, tawny-haired, with laughing black eyes, these young French-Americans were delightful gay playmates, and a great change from our English-fashioned young friends across the mountains. Language, customs, prejudices, cookery — all was as French here as the other was English.

Although St. Louis was not more than a *petite ville* in numbers, yet it had great interests and had a stirring life, much of which revolved about my father, who was the connecting link and powerful

friendly intermediary between these interests and the Government.

General Clarke, of Lewis-and-Clarke exploring fame, was ending his days quietly in St. Louis where he had charge of all Indian affairs for that whole region; a distinguished-looking white-haired man who understood his trust and governed kindly and wisely.

When Washington Irving was out there a war-dance was held in the large council yard that he might see real Indians at their real life. I was very young, and the whole horrible thing, as they grew excited, threw me into a panic. A tall strong kind-faced young officer, married to a favorite cousin of my mother's, carried me off and comforted me. He too is of the past, and it was his kind thought for his soldiers that cost his life. Had he kept his surgeon near himself, General Albert Sidney Johnston would not have bled to death from the wound he received at Shiloh.

St. Louis was on the border of an immense and almost unexplored Indian country. The caravans of merchandise going through it to Santa Fé ran all the risks you ever read of among Bedouins on the desert; the hunters and trappers, as well as the merchants, started off into the unknown with only the one certainty — that danger was there; and when they came back — if they did — it was as from underworld. Jefferson Barracks below St. Louis was a large and important military post which was kept busy enough. It ended much hard Indian warfare when they at last captured Black Hawk. I saw him when he was a prisoner at the Garrison — a real Indian and real old warrior, captive but not subdued.

The governing religion was of course Catholic as this had been so lately a French possession and its chief people were the French settlers who were also the chief traders in furs. Priests and Sisters of Charity in their special black dress were everywhere in the streets, so were the army officers in service-worn uniforms, and the French peasant women wore, as in France, their thick white caps, sabots and full red petticoats with big blue or yellow handkerchiefs crossed over the white bodices; and with the Indians painted and blanketed gliding along in files towards the enclosure around General Clarke's quarters one would have been puzzled to say whose country it was now. On the levee negro boat-hands sang wild chants as they "loaded-up"; but already keen-featured, sallow men were going quietly but alertly in and out of warehouses, and council yard and fur trading houses — "*white clover*" which ate its way into possession of the pear-orchards and made them town lots, and built square ugly meeting-houses near the cathedral, and married the French girls, and generally changed the face of St. Louis "French" nature.

The houses were built in the Creole way; a court-

yard surrounded by a four-sided house with broad galleries all round, which sat peacefully in the midst of trees and gardens and orchards on the gentle slope looking to the wide muddy torrent of the Mississippi and the flat green plain beyond of "the Illinois." There was only one "main" street—very village-like and not over a mile long. The dwelling-houses were placed just where they preferred without regard to any future plan. The Bishop's garden and the Cathedral (where was the appalling picture of St. Bartholomew) were on a handsome scale, but bordered by little alleys of roughly-paved short streets. From these, by a garden gate in a high wall, you could go in to a great garden which was part lawn and part orchard—pears they cultivated most; and well off from the street would be the large quiet house with polished inlaid floors and handsome, old mahogany furniture. They lived a most comfortable and unceremonious life among themselves and were friendly and hospitable to those they felt to be friends, but, apart from the chosen few, had open antipathy to "*dose American*."

As in France, the young people in marrying did not go from home but had a part of the large house assigned them, and three generations under one roof seemed to blend smoothly in the family whole. There are some charming stories by a daughter of Guizot, Madame de Windt, and by Madame Charles Reybaud (who writes also of family life) and which give peaceful pictures of this way of living, not known to English peoples.

Growing up in its midst, I felt at home in all French domestic ideas when I lived in France; and Hamerton is right in his praise of many of its good aspects.

My father they knew to be their comprehending and earnest friend; *l'ami des Français* was their name for him, and his personal relations with his many clients in both New Orleans and St. Louis were warm and true on both sides.

They *had* been badly treated in the matter of

land titles; it is the habit of our Government to disregard its treaties with helpless peoples, as we saw repeated in California.

Quite in the beginning of our war Prince Napoleon came out to St. Louis. He was deeply interested in our military movements, more especially those to be carried through this Western country. He could not be comforted for the loss to France of this noble territory. It was very interesting to see him on this ground. His remarkable likeness to the great Napoleon gave a curious historical effect to his talk. He had but the one day to give to St. Louis and was to visit the troops, their camps and barracks and hospitals—all a soldier comprehends as essential to successful work. The first visit of course was made by the General who had sent to ask when he would receive him, sending also his Chief of Staff to let the Prince know what there was to be seen in military preparations, etc. The General's brief visit made, the Prince returned it within the hour, when he found a large mounted escort waiting him at Headquarters, to go everywhere with him. Not an empty form, for the strength of the country there was against our side. But the Prince forgot his brief time and the waiting guard, for after the first politenesses he squared himself round to the General and began with what was on his heart: "*Comment mon oncle à til pu se défaire d'un tel Empire?*"* and became so engrossed in this subject that he forgot all else and it was some time before he broke off.

Except in height, the likeness to his uncle, when Emperor, was exact, and it seemed almost as though the old Napoleon were rebuking himself as he realized the empire given away.

If you will take the map of our country and look up what the French held in the time of Bonaparte, you will understand something of the feeling with which the nephew now looked on this magnificent heritage lost to France.

* How *could* my uncle have deprived himself of such an Empire?

THE TEMPERANCE TEACHINGS OF SCIENCE.

VIII.—EFFECTS OF ALCOHOL UPON THE KIDNEYS.

BY PROF. A. B. PALMER, M. D., LL.D.

THE kidneys are two darkish red organs, about four inches in length, two in breadth, and one inch in thickness, with a convex outer and a concave inner surface, situated one on each side of the abdomen, the right just below the liver, and the left below the stomach and spleen, and both near the backbone. Their office is to carry out of the body, by straining them from the blood, various

substances dissolved in that fluid, and held in solution by the water passing out with them. Some of these substances are formed in the body from worn-out materials of tissues, and some are matters taken into the system from without, and which are not appropriated to its uses.

The kidneys are supplied with large blood vessels which carry to and from them large quantities of

blood, and the water, with the other ingredients in it, which is separated from the blood is conveyed from each of these organs by a tube to the bladder, from which from time to time it is expelled as waste and useless or injurious matter.

This is an office so important that if it is suspended for any considerable time, blood and tissue poisoning, and especially brain poisoning, is produced, and death soon follows. If this office is imperfectly performed, more or less derangement results according to the degree of such imperfection. Whatever, then, injures the kidneys and impairs their action inflicts a serious injury upon the system. We are now to consider the action of alcohol on these organs.

Any substance taken into the body and passing into the blood, and not changed in its form or appropriated to the uses of the system, is carried out of it, and to a large extent by the kidneys. Poisons and medicines are thus removed from the blood as it is constantly passing through these organs. As alcohol is not digested in the stomach but passes unchanged into the blood, and is not converted, or, if at all, only in small quantities into any other substances to be appropriated to any uses in the system, it is certainly mostly carried out of the body as it entered it, partly by the lungs and skin, giving its odor to the breath and the perspiration, but largely also by the kidneys. It thus comes in contact with the very delicate structure of these organs, and makes its impression upon them.

As is the case with other organs, that impression varies with the quantity taken, with the length of time it is used, and with the power of resistance to morbid impressions.

The first effect of alcohol on the kidneys, as it passes through them in the current of blood which goes to them for purification, is to produce more or less irritation. This is marked in some instances and scarcely perceptible in others. It should be understood that the liver, the lungs, the heart, and the kidneys have large quantities of blood carried to them to be acted upon by those organs respectively, as well as blood to nourish them in common with all other organs.

The vessels conveying the blood to and through the kidneys for whatever purpose, are dilated by the alcohol, the organs are more or less congested, and usually their secretion is temporarily increased. Sometimes decided inflammation of these organs is induced by this irritation, especially where a free quantity of the alcohol is taken, or if in addition there is exposure to cold and wet, as when in a state of intoxication one is exposed to rain, or lies upon the ground. Cases are not infrequent where, after a fit of drunkenness and the exposure apt to attend it, an acute inflammation results, with such impairment of the structure and action of the kidneys as to lead to convulsions and death, or to the laying of the foundation for general dropsy —

and other forms of more chronic but equally fatal disease.

The most frequent morbid effect on the kidneys of the long continued indulgence in alcohol is the much dreaded and generally fatal Bright's Disease. This affliction is not always produced by alcohol, but all agree that tippling is the most frequent cause of its occurrence. In this disease the kidneys, by repeated irritation and a slow inflammation, undergo such changes that they fail to separate from the blood the materials that should be carried out of the system, and these matters, being retained, poison the brain and other parts, causing a variety of diseased conditions and symptoms. The kidneys are in some stages and cases enlarged, and in others contracted. They undergo fatty, and other forms of degeneration, and the symptoms produced are dropsy, debility, blindness, paralysis or loss of power, stupor, convulsions, and, almost certainly in time, death.

Besides failing to carry off these injurious matters, the kidneys, by these changes they undergo, allow the rich portions of the blood (the albumen) to pass through them, thus depriving the body of nutritious elements, aiding in the promotion of weakness, paleness, and exhaustion, increasing the dropsy, and hastening the patient on to a fatal end.

A particular condition of the kidney sometimes occurs, called the Gouty Kidney. This is associated with other symptoms of gout, and is a form of Bright's Disease, attended with its consequences; and gout is dependent upon the use of alcohol, either in the individual or his ancestors. Those peoples, as the Mahomedans, who, from their religious teachings, or from other causes, abstain from wine and other alcoholics, never have this disease so common in wine and beer-drinking England.

Alcohol, in all its combinations in different liquors, in its action upon the kidneys, whenever its effects are noticeable, produces nothing but mischief, and no intelligent physician pretends that it serves any useful purpose so far as these organs are concerned.

I remember meeting a prominent medical gentleman of my acquaintance years ago, when the subject of the use of alcohol was introduced. In opposition to my own views he contended that, when used "temperately," it was not objectionable. He said, no man abhorred drunkenness or despised drunkards more than he. He said he was never drunk in his life, and to the end I presume he never was. He never drank in saloons, and very seldom at other than meal times; but his bottle of whiskey, he said, was on his table and by his plate as regularly as his knife and fork, and he always took a drink with his food. His digestion was, he thought, not impaired by it, and his sensations were more agreeable and his general condition better, when he took his accustomed dram, than when on rare occasions he went without it.

As for the example, he said he was not responsible for others' excesses, and, in fact, he said he set a good example by his moderation. He should therefore continue to have his whiskey bottle by his plate and use it as he had done. No more favorable statement in favor of its use than this can be made, and he used it in a manner as little likely to do harm, considering the amount taken and its continuance, as was possible.

Taken with his food and mingled with it, and diluted with water, though probably neutralizing a portion of the gastric juice, it was not applied in a concentrated form to the coats of his stomach; and it produced but little or no apparent irritation there. It was slowly introduced into the blood, and no sudden or strong impression seemed to be made upon the liver, the lungs, the heart, or the brain. His sensations were more agreeable after each dose, on the same principle that opium, tobacco, and other narcotics than alcohol produce

agreeable sensations. They all produce more agreeable feelings than those which are experienced when the accustomed quantity is omitted. These feelings of uneasiness, of depression, and distress, that result from abstinence from the indulgence, though produced by the habit, are wonderfully relieved for the time by a repetition of the usual dose.

But the alcohol, however taken, must be gotten rid of, and a large portion of it is carried out by the kidneys. Its repeated and long-continued presence in them is apt to tell upon these organs; and in the case of this gentleman, in two or three years after this conversation, he was reported to have Bright's Disease of the kidneys, and soon after retired from his city work to the country, where in a few months he died, in the prime of his years.

This is not a solitary case. It is rather a typical example, and it illustrates the insidious manner in which this *deceiver* often produces in the end its evil effects.

THE MAKING OF PICTURES.

BY SARAH W. WHITMAN.

VIII.

LINE ENGRAVING, MEZZOTINT AND LITHOGRAPHY.

A HUNDRED years ago it would have seemed a strange thing that "Line Engraving" should be spoken of late, rather than early, in the list. Yet such has been the course of events, such the discoveries made in what are called the "reproductive processes," that the position now occupied by engraving on copper is very different from what it was, and it no longer maintains the stronghold of its earlier life. Very much of what was said of wood engraving in the last chapter might be repeated here, so far as the changes in treatment and scope which have come to this branch of art also; the progress of steel engraving having been marked by increased power of expressing forms, textures, etc.

It may be said, in passing, that there is no more reason why engraving on copper and steel should be called *line* engraving, than that etching or wood cutting should be so called, as all these different methods involve, as a matter of necessity, the use of the line; but in some way the association of the name with the graver's work was formed, and it is generally understood when any one speaks of a "line engraving" that a print from an engraved metal plate is meant. It must not be inferred from its having been said that the various processes of engraving all involve the use of the line, that these processes are all alike. On the contrary, line en-

graving is quite a special and distinct method of obtaining a result in black-and-white, the lines being produced in the hard metal by the use of the burin or graver, which is totally different from the etching needle, for instance, that being a tool held somewhat like a pencil, while the graver is grasped firmly between the thumb and fingers, while, with the handle resting within the hollow of the hand, it is pushed along through the reluctant metal. Several things in the character of the work done, result from the manner in which the graver must be used; among them the two important facts that the lines can only be made in a forward direction, and that they can only be made to turn in a curve.

It is the possibilities and the limitations combined, which give each art its distinctive quality; and while the curved line does not serve to express certain effects or qualities, on the other hand it has a singular excellence in the expression of many forms or objects — as for example, the modelling of the human figure, the delicate modulations of the surfaces of the body. This power, perhaps, is to-day of less value, inasmuch as the photograph is so largely availed of in copying pictures; but during the last three hundred years and more, line engraving has been of rare worth in giving a representation in black-and-white of groups of figures, or in reproducing in large and small scale, the planes of the human head and face.

It was found necessary, as soon as line engraving had advanced beyond the stage where it has been described as "an outline shaded" (that being

exactly what it was for a long period), to invent a series of conventional lines, or symbols as they might be called, to express certain forms or surfaces or textures; thus adding, as has been said, to the scope and efficacy of the work. In doing this, it is to be remembered that the symbols should be such as would, when used, produce the required impression on the human eye; and so it was possible to use many devices to achieve the desired effect, which depend upon the eye's power. If you should put a delicate line engraving under the microscope, you would be amazed to find how utterly unlike any known object the mass of confused lines and diamonds and dots appeared; but viewed by the ordinary eyesight it is found that according to proved rules for the cutting of steel plates, such and such effects are produced in such and such a way: long, parallel lines create an impression of atmosphere; and when crossed at right angles give a deeper tone; lines crossed obliquely by other lines produce an admirable texture for drapery and stuffs of various sorts; while the appearance of the soft yielding forms of the human body is obtained by delicate curved lines running parallel with each other, or in yet more sensitive forms by a series of minute dots following the same direction as would be made by a curved line.

All this sounds much simpler in description than it can possibly be in practice, when it requires an eye absolutely exact, a hand firm and highly trained, together with the intelligence to represent in a difficult and conventional method the main elements of a picture.

When the engraver is called upon to do this, he is obliged first to make a most careful study of the painting which he is to reproduce upon paper, in accordance with the laws of his art. He decides in what way, by what means, the various effects are to be obtained, and after this is seriously thought out, then he begins the work.

It is customary in making a large line engraving to trace the outlines on a prepared surface as if for an etching, and then to have the lines slightly bitten with acid before beginning to cut the metal with the graver. After this the work of engraving goes slowly and cautiously on; and it can easily be seen how much patience and how much time is involved, in the production of one large plate, such as that of Guido's *Aurora*, where the time employed must be counted by years. During the process it is, of course, possible to take frequent "proofs" in order to judge how the work is going on; and yet so necessary is it to preserve the extreme nicety of the edges of the copper, that the good engraver does not allow himself this luxury oftener than he can possibly help it, reserving it as a last resort, so far as may be. When the plate is finished a certain number of prints are taken, often on paper of especial fineness, and these first and best are called "Artist's Proofs;" then a second small

series, and these are called "Proofs;" then finally the large number which go to make up the general supply. There are various ways of detecting an "Artist's Proof" or a "proof;" very often the name of the picture is omitted in these, and sometimes there is a slight mark, or sign in the margin, and so on; and, as will be understood, these possess especial value, because of the delicacy and perfection of the plate in the early conditions of printing—conditions which suffer slightly as every print is taken, until after much printing the edges of the lines grow sadly blurred, and the prints become almost worthless.

When one calls to mind how much devotion and labor must have been put into engraving, how earnestly and with what affection artisans of high ability endeavored to reproduce the works of the greatest artists, so that those works might become widely known and, in a sense possessed by many people, one feels how deep was the obligation which the world owed to these men. One understands also how inevitably came the enthusiasm for collections of engravings; for curious and rare prints; for all those specimens, famous because of special excellences, or for the hints they give of the growth and development of the art. Enormous prices are still paid for a print which is distinguished, by those who know the traditions and history of line engraving; while those who are interested in tracing the rise and progress of this fine handicraft can find elaborate books which give the detail from the very beginning, in the work of Baldini, an Italian and contemporary of Botticelli; all the way along with Dürer and Van Leyden and the group known as the "Little Masters," on to the present day.

Directly following in the wake of line engraving comes that process which is known as Mezzotint, employing at the same time a method to produce its effects almost the opposite of the former, notwithstanding that it is also a print obtained from a copper or steel plate. Mezzotint is practiced by first subjecting the whole surface of the metal to a tool called a "rocker." This is a very broad chisel, with the end round instead of square, and the surface of this round edge filed across so as to produce edges or points. The rocker is rolled forward and back in all directions, over the copper, until the surface is covered with a myriad of little raised points or scratches, technically called the "bur." The result of this is that the ink is so caught and held by the roughened metal that it is capable of printing the very darkest and richest black shades, even more velvety and deep than the fine black produced in broad flat surfaces by wooden blocks, as before described. On the burred metal the picture is wrought out not by lines at all, but by flat surfaces obtained by the use of scrapers, and representing easily any work which is dependent mainly on broad or mellow effects; not in delicate detail, or sharply accented contrasts. Paintings which are

distinguished for large effective manner of treatment find ready translation through mezzotint; and it is still used, sometimes with charming effect. The fact that mezzotint was employed to render the series of great and beautiful studies made by Turner, and known by the name of the *Liber Studiorum*, will always give the art a certain interest. These plates are almost all printed not in black, but in brown, which adds to the beauty of the result; and also, the mezzotint process has been greatly helped by giving a vigorous outline in etching first, thus adding strength just where it is needed, at the same time that the rich melodious tones of the mezzotint are allowed their full expression.

In this chapter I must include also some mention of the large and varied department of lithography, or printing from stone. Originally this term applied only to a process in black on white paper; but owing to a possibility of tracing the design on one stone upon another stone, so that the two might be employed in printing, a double power was obtained, and pictures were produced in two tones, as for instance black and gray. From this the advance was rapid till printing in color known as "Chromo-Lithography" followed in its many variations. It will readily be understood that producing pictures in color by mechanical means can never be greatly developed so far as its artistic value is concerned; color as it is used in art being far too

varied and subtle, far too dependent upon spontaneous expression for any other than human handling. The chromo-lithograph has its place: reaching a point of great merit for the reproduction of flat conventional designs, for purposes of decoration perhaps; but the more fully the public learn the beauty of true art, the more impatient they will become of all work that depends upon purely imitative faculty; or which substitutes a reduplicated prettiness for serious original art-work — the more readily they will perceive that in the best chromo-lithography of landscape and figure, the educated eye must see that all the cleverness of mechanical contrivance and perfection of adjustment, cannot bestow that intrinsic thing — the *artist's feeling* — which in original work is revealed in every tint; and without which, *there is no art as such*.

I am reluctant to leave this last word on engraving and its companion crafts, without asking you to remember one especial pleasure that has come through its means; namely, the obtaining of choice and beautiful pictures in such small scope as engraving often affords. It is well to see how much satisfaction can be stored up within the space of a few inches; just as in the old carving in gems and ivory, one finds in the most minute work dignity and freedom, and learns that what has been called "largeness of art" has no relation to dimensions, but depends upon the breadth of the idea it enfolds.

BOYS' HEROES.

BY EDWARD E. HALE.

VIII.

ROBINSON CRUSOE.

IN our list of heroes, I have included one name of one person who was never born, and never died, and never lived with a real physical body in this world. But strange to say, this name is much dearer to most of the readers of these papers than is any other upon our list. And the man to whom it belongs is much better known than are any of our other heroes.

And his name, it is "ROBINSON CRUSOE."

There are so many editions of the life of Robinson Crusoe now published, that the best informed authority on books would not even pretend to tell you what they all were, or how many. It is a book for which the demand is perfectly steady, and any good edition of it may be printed with almost a certainty that the stereotyped plates may be worn out in printing copies which will be sold. It is a

book which is quoted among all English-speaking people with the certainty that the quotation will be understood. Thus, an allusion to the "man Friday," or to the footprint of the savage in the sand would be made quite as surely as an allusion to any familiar passage in history, or even in the Bible.

Any people of our race would understand this if they had ever read anything at all. Even in such a short list of books as that of those which Abraham Lincoln read when he was a boy, you are almost sure to find Robinson Crusoe. Indeed, its literary merit is such, quite apart from the human interest which belongs to almost every page, that it would appear among the first books of English fiction, if not as the very first. Of all the stories ever written originally in the English language, I suppose that *Robinson Crusoe*, the *Pilgrim's Progress* and *Uncle Tom's Cabin* have been the most widely read.

Daniel De Foe, the author, says himself that the

whole story is an allegory with a religious purpose. He says that it might disclose the religious experiences of a man known to him, and that it was written for that purpose. Indeed, he wrote and published a third part, devoted wholly to a Religious Vision of Robinson Crusoe. A curious book it is indeed. There is in it a picture of Crusoe outside the world — as if he were walking along the world's orbit and had been left by it. In the background you see the earth and the moon, and I think, the sun. But I speak from memory only. The book is rare and I have not seen it for many years.

Whatever may have been Defoe's intention no one has, in fact, ever unravelled the allegory of the book. It is taken as a piece of the purest narrative in the English language, and so, in the main, I will speak of it here.

To tell Robinson Crusoe's life in brief, then, as I did Bayard's in the preceding chapter, he was born in the city of York, in England, September 30, 1632, of good family, he says. His father had been a German from Bremen, who had settled at the English seaport of Hull. So "poor old Robinson Crusoe" might have a place in the Walhalla. The Walhalla is a splendid temple near Ratisbon, in which the king of Bavaria places busts or statues of the men and women of German race who have served the world. Among others are William the Third of England, and the great Katherine of Russia. Here he ought to put Robinson Kreut- zner, otherwise Crusoe. For certainly he has done the world quite as good a turn as ever Katherine did.

Robinson was the third son of his father. He had a rambling turn and would be satisfied with nothing but going to sea — and in fact when he was but nineteen years old, on September 1, 1651, he ran away from home and took passage on a ship for London with a young friend who was going in his father's ship from Hull to London. There is not, in all the story of Robinson Crusoe, the slightest reference to the great English political struggles of the time. But it is worth while to notice that the first of September, 1651, was two days before the great battle of Worcester, in which Cromwell finally beat the Royalists and Charles the Second fled for his life. Robinson's first storm was, apparently, on the day Charles was beaten. Three days after, Robinson is shipwrecked at Yarmouth. This is while Charles is escaping from England. The storm in which Robinson's ship was lost appears elsewhere in real history.

The people at Yarmouth sent Robinson and the others of the shipwrecked crew to London. Here he began life, on a small scale, as a trader with Guinea on the coast of Africa, and made one successful voyage there. In a second voyage he was taken prisoner by a Moorish corsair, and had to serve a Moorish nobleman as a slave. But he fortunately escaped with a black slave named Xury,

and was picked up by a vessel which carried him to Rio Janeiro.

Here he became a Brazilian planter. He sent back to London for such money as he had there, which came out to him in well-assorted English goods. And here he might have lived and died, and none of us would ever have heard of him, but that he and his neighbors wanted more slaves than they had. In an evil hour for Robinson Crusoe he engaged in a voyage to the African coast that he might obtain slaves for himself and his friends. The vessel, however, had not been long at sea when she was struck by a storm and wrecked on a small island at the mouth of the River Oronoco. Robinson was the only man who saved his life. On this island he lived for twenty-eight years.

The title page of the early editions is perfectly distinct as to the place of his residence. In twenty places in the book itself he states where he was. There is really no excuse for the common statement of half the school geographies and half the newspapers that he lived on Juan Fernandez on the other side of South America.

He had lived twenty-four or twenty-five years alone on his island, when on a visit from some savages who had come over from the mainland to celebrate a victory, he was able to rescue from them one of their prisoners, who became his companion and slave. Robinson gave to him the name of "Friday," from the day of his capture. In the third year after, they rescued some Spaniards and Friday's father, who had been brought over for a celebration like the other. The Spaniards had been sent back to the mainland to bring some countrymen of theirs to join the islanders, when an English ship, which proved to be in the hands of mutineers, anchored in the offing. Robinson and Friday succeeded in rescuing the captain and making the mutineers prisoners. The grateful captain put the ship at his disposal, as well he might. Robinson was eager to leave his domain, and sailed with Friday, leaving his new Spanish friend for his fate. He did this without hesitation. But to us it seems that he ought to have waited. He had been on his island, according to his own statement, twenty-eight years two months, and nineteen days. This would make his departure from it December 19, 1687. But his own figures say that he left on the nineteenth of December, 1686, and that he arrived in England, June 11, 1687. This would give only twenty-seven years and the odd months and days on the island.

He found that the various agents who had had the charge of his property were willing to deal honestly with him, and that he was a rich man. His property in various forms was worth fifty thousand pounds. In the inquiries regarding this property he went to Lisbon, and he returned through France in winter, by a journey which proved most perilous. He arrived in England on the four-

teenth of January, 1683, having been gone from England, this time, nine months.

He then married, and had three or four children. He took a farm in Bedford and became a country gentleman, living a most agreeable life. But in the midst of his happiness, his wife died, and he was all broken up again. He felt all a stranger in the world. In the beginning of the year 1693, he went to London, and there met his nephew, whom he had brought up to the sea since his return. This nephew proposed to him a voyage to his old island, in a ship of which he was master. Crusoe struggled against the temptation. But he saw no reason why he should not go, as indeed there was none, if he could provide well for his children, and, after a year's preparation — so much time did the outfit for a voyage then require — he sailed again from England on January 8, 1694-95. It was on this voyage that he almost came to Boston. What a pity he did not! He had rescued the crews of two vessels in great distress — and at one moment it seemed as if they might have to come for supplies to "Virginia or any part of the coast of America." But alas for our fathers, this did not prove necessary. On April 10, 1695, they found his island, after a good deal of difficulty, having touched at several places which were quite wrong. The colonists had had a sufficiently hard time, both in repelling invasion from savages, and in putting under some of the mutineers. But in the end law and order had triumphed. The Spaniards were living in Robinson's old castle, and the English party in two other little colonies, with quite a number of Indians who were, I am sorry to say, used as slaves by the rest when they wanted them. But there was one party of the savages consisting of thirty-seven who lived by themselves, on a neck of land in the southeast corner of the island; "the most subjected innocent creatures that were ever heard of." The Englishmen had obtained wives for themselves in an excursion to the neighboring islands.

With these people Robinson Crusoe left a tailor, a smith, and two carpenters, and a "general artificer" whom he calls, the "Jack-of-all-trades, an ingenious and merry fellow." This man married at the island an English maid-servant whom they had picked up from one of the ships which they had relieved by the way. And Robinson left them there. He also left a Catholic priest whom they had taken from another ship, and this priest married all the men to their savage wives after fit explanations of the contract to them. After a stay of five and twenty days, Robinson left the island.

Alas! on the third day, as they approached Brazil, an enormous fleet of canoes surrounded the vessel when she was at anchor. When Friday was trying to communicate with them, they shot a cloud of arrows into the vessel and killed him. With a sad heart Robinson went on to the Bay of Todos

Santos, and here met his old partner. They set up a sloop there, which he had brought, ready to frame, from England, and sent several more colonists to the islands with cows, horses, calves and swine. These people all arrived safely and Robinson received letters by the sloop from the island afterwards. At a later time he had letters once more when they were not faring well. And that is the very last that was ever heard of them.

As for Robinson Crusoe, he took passage for the East Indies with his nephew. He touched at the Cape, at Madagascar, in the Persian Gulf, and in the harbor of Bengal, as he calls it, he had a quarrel with the crew of his nephew's ship. His nephew left him there with all his goods, much as Sindbad was once or twice left alone in similar regions. But Robinson was not unused to such things. He sold his goods and bought diamonds, very good ones, so that he could carry all his estate with him. He remained there some time, and then with a friend taking ship, made a voyage to Sumatra and Siam which occupied eight months, and was successful.

A second successful voyage of five months took him to Borneo, and the Spice Islands. In the course of his speculations he bought, in good faith, a Dutch ship of two hundred tons, and he spent six years trading from port to port. But once when he was in this vessel, in the river of Cambodia, he found out that he had made a very risky purchase. For he had bought her of a pack of mutineers, and, at the very moment when he learned this, five armed boats were coming down the river to take him as a pirate. He had but just time to hoist his anchor and make sail when the five boats appeared. Robinson sank the leading boat, but picked up three of her men, from whom he learned the detail of the charges made against him. The ship was perfectly well known, and it was supposed that he was the leader of the mutineers.

Naturally enough he and his partner did not dare to go back to Bengal with such a reputation. They kept eastward, and coming into a creek in Cochin-China, careened and repaired the vessel, with no lack of adventures.

Persevering eastward he had the good fortune to pick up a pilot who took him to a Chinese port called Quinchang. And here he fell in with a Japanese merchant who bought all his opium and took the ship to Japan, and Robinson found himself left alone in China. In those days, however, foreigners could travel in China; and he went by land to Nankin, then to Peking, and to the city of Naum, if any one can find that.

Then for sixteen days, he went through "No-man's-land" and on April 13, 1703, came out at the fortress of Argun, the first point which belonged to the Czar of Muscovy. Seven months of such travelling brought him to Tobolsk, then the capital of Siberia; and here he spent the whole winter. He made acquaintance with an exiled nobleman,

and offered to carry him back to Europe. This gentleman declined the offer, but introduced his son to Robinson, who brought him successfully to Archangel, where they arrived July 18, 1704. And here they sailed for the Elbe, and Robinson staid four months in Hamburg selling his goods. His own share amounted to three thousand four hundred and seventy-five pounds, seventeen shillings and three pence.

Thence he crossed over land to the Hague, and by the packet to England, arrived in London, January 10, 1705. He says himself, that he had been absent from England ten years and nine months; but any one who makes the computation sees that he had been absent eleven years, with the exception of two days. "And here," he says, "resolving to harrass myself no more, I am prepared for a longer journey than all those, having lived seventy-two years, a life of infinite variety, and learned sufficiently to know the value of retirement, and the blessing of ending our days in peace."

And this is the last that is known of Robinson Crusoe, excepting that he died. That he died, is known by the testimony of one of his descendants, who lived to the age of manhood. This descendant, whose name is not known, wrote a ballad, of which the first verse is:

When I was a lad
I had a cause to be sad
For my grandfather I did lose — O!
I bet you a can
You have heard of the man,
For his name it was Robinson Crusoe.

Now Robinson's oldest child was born sometime in the year 1691. If this grandchild was born even as early as 1711, and were "a lad" old enough at four years of age to feel the sentiment of sadness on the death of a grandfather, Robinson Crusoe must have lived to the age of at least eighty-three. But of the last nine years of his life, written history makes no record, excepting the two letters he re-

ceived from his island, in that time. The annals of those years are to be looked for, and his epitaph sought, if anywhere, in the county of Bedfordshire.

Now it is quite sure that much of the interest with which we follow Robinson Crusoe is due to the style in which De Foe has told the story. It is, perhaps—it is probably—the best long piece of narrative English which was ever written. Franklin, who formed his style on the study of De Foe, approaches him I think, more nearly than any other writer. So far as the study of authors goes, I think that the narrative of these two men would be the best model we could give a foreigner. But it is not the style of the book which has given it its welcome in the world. It is the man, so imagined that we think him real, who tells so openly, such a story of himself. He grows in years, and in character, before our eyes. He makes mistakes, he commits crimes, he sinks in vices—and he tells of them. He repents, he turns about, he reforms, he gains strength from the Fountain of Strength—and he tells us that just as simply.

It is not often that a book traces a hero from his birth to the age of seventy. A certain interest attaches to all such books—even when they are badly done, even if the hero move on, the same unchanged china image, from babyhood to old age. The great merit of this book is that the hero does change. He profits by experience. He profits by advice. He is a different man at forty from what he was at thirty, as at thirty he differed from what he was at twenty. He is very human.

And he interests us because he does so much for himself, and has not to rest on others. He had learned how to make baskets. He had not learned how to make pipkins, but he taught himself. He made mistakes about his corn, but things came right in the end. And he learned, before he was too far gone, that the Universe was not his Universe, nor the world his world. He determined that the best thing for him to do was to be a fellow-workman together with God.

SEARCH-QUESTIONS IN AMERICAN LITERATURE.

BY OSCAR FAY ADAMS.

VIII.

POEMS AND PLACES.

141. With what poem is the tower of Christ Church, Boston, associated?

142. What poem has Wall Street, New York City, for its *locale*?

143. What series of poems are associated with the Red Horse Inn at Sudbury, Mass.?

144. What two poems relate to the siege of Lucknow?

145. What poem is famous in connection with Frederick, Md.?

146. What place is meant in Mrs. Piatt's poem, "A President's Home"?

147. To what place do these lines refer?

Here once the embattled farmers stood,
And fired the shot heard round the world.

148. Instance three poems relating more or less distinctly to Lynn, Mass.

149. What familiar poem is associated with Bethlehem, Pa.?

150. What American river is oftenest referred to in poetry?

151. What famous poem relates to a government building at Springfield, Mass.?

152. What two poems are connected more or less directly with Beverly, Mass.?

153. Which of Whittier's poems is a story of Block Island?

154. What is the locality mentioned in the following?

I lit the lamps in the lighthouse tower,
For the sun dropped down and the day was dead:
They shone like a glorious clustered flower,
Ten golden and five red.

155. In what noted poem is the reef of Norman's Woe mentioned?

156. Where is Monument Mountain, described in Bryant's poem of that name?

157. Where is the *locale* of "The Culprit Fay"?

158. Mention at least six poems relating to Cambridge, Mass.

159. In what poem occurs the following?

And as the tower came crushing down, the bells in clear
accord,
Pealed forth the grand old German hymn — "All good souls
praise the Lord."

160. What poem commemorates a sea-fight at Hampton Roads?

ANSWERS TO SEARCH-QUESTIONS IN THE MARCH READINGS.

101. *Wieland*, by Charles Brockden Brown; published in 1798.

102. *The Bay Psalm Book*, printed at Cambridge, Mass., in 1640 and mainly the work of Richard Mather, John Welde and John Eliot.

103. "Sandalphon," by H. W. Longfellow; "Zophiel," by Mrs. Maria [Gowen] Brooks; "America," by Rev. Samuel Francis Smith, and "Columbia," by Timothy Dwight.

104. *The Federalist* is the name given to a series of eighty-five political essays which appeared for the most part in *The Independent Journal*, a New York semi-weekly, during the winter of 1786-87. They were written by Alexander Hamilton, James Madison and John Jay over the common signature of "Publius," and constituted an argument for the adoption of the Constitution of the United States.

105. *The History of New England*, published in 1799 by Hannah Adams.

106. In 1815. Its first editor was William Tudor.

107. The New Testament in 1661 and the whole Bible in 1663.

108. Mrs. Anne Bradstreet. The volume was printed in London in 1650.

109. "Old Folks at Home," by Stephen C. Foster; "Ben Bolt," by Thomas Dunn English; "Old Grimes," by Albert Gorton Green; "My Life is like the Summer Rose," by Richard Henry Wilde, and "The Battle Hymn of the Republic," by Mrs. Julia Ward Howe.

110. *Uncle Tom's Cabin* appeared serially in 1852 in *The National Era* published at Washington, D. C.

111. *Public Occurrences*, the first American newspaper, appeared in Boston in 1690, but was suppressed by the authorities of the province before a second number could appear. *The Boston News Letter*, first issued in April 24, 1704, was for fifteen years the only newspaper in America.

112. "Nothing to Wear," by Wm. Allen Butler; "The Golden Milestone," by H. W. Longfellow.

113. Thirty-four, beginning with *Precaution* in 1819, and closing with *Ways of the Hour* in 1850.

114. Washington Irving, James Kirke Paulding, Joseph Rodman Drake and Fitz-Greene Halleck.

115. *Zenobia*, by Rev. William Ware; *Gunnar*, by Hjalmar Hjorth Boyesen; and *Margaret*, by Rev. Sylvester Judd.

116. "The Prince of Parthia," by Thomas Godfrey. The work was not published till 1765, two years after the author's death.

117. The General Magazine and Historical Chronicle for all *The British Plantations in America*. Published at Philadelphia by Benjamin Franklin in 1741.

118. "MacFingal," by John Trumbull and "The Simple Cobbler of Agawam," by Nathaniel Ward.

119. Abraham Lincoln.

120. "The Amber Gods," by Mrs. Harriet Prescott Spofford.

C. Y. F. R. U.

REV. J. H. VINCENT, D. D., AND REV. J. L. HURLBUT, D. D., SUPERINTENDENTS.
MISS K. F. KIMBALL, PLAINFIELD, N. J., SECRETARY.

[This department, while not less interesting to the general reader, is especially set apart for the CHAUTAUQUA YOUNG FOLKS' READING UNION, the young people's branch of the Chautauqua movement for popular home education. It supplies a course of reading for young people which is intended to give them the most valuable knowledge in the most interesting manner. The Required Readings are issued simultaneously in WIDE AWAKE and the CHAUTAUQUA YOUNG FOLKS' JOURNAL; a few added books form the Supplementary Readings. The Union is under the direction of REV. J. H. VINCENT, D. D., and REV. J. L. HURLBUT, D. D., as Superintendents, in connection with the Editors of the magazines mentioned above. Any person, young or old, may become a member of the Union by sending his name and *ten cents* in postage stamps to the Secretary, MISS KATE F. KIMBALL, Plainfield, N. J., to whom inquiries for further information may be addressed.]

"THE SOUVENIRS OF MY TIME," by Mrs. Frémont, are very interesting in this number. We would suggest to local clubs and individual students, to find out what they can about the following subjects contained in this article: 1. Mrs. Frémont's husband, General Frémont; why he was once famous; how he earned the name "Pathfinder"; and his remarkable history, both in politics and in war. 2. Mrs. Frémont's father, Colonel Benton; his history and character, and why he was called "Old Bullion." 3. What the article tells of the curious Mrs. Crugar. 4. A journey by stage-coach from Washington to St. Louis, pointing out on the map the places passed through. 5. The Lewis and Clark Exploring Expedition; why it was sent out, where it travelled, and what it accomplished. 6. Who was Black Hawk, and what did he do? 7. The city of St. Louis; location, history and characteristics in olden time. 8. What was the western territory that Napoleon bargained away, and how was it lost to France? A map of the "Louisiana Purchase" might be drawn upon the blackboard, the history of the purchase told, and the territory divided into its several States. All this will take time and work, but it will disclose a new meaning to the article, and will more than repay the students.

"THE CHILDREN OF WESTMINSTER ABBEY" in our number will furnish some interesting studies, among which we would suggest the following: 1. Bramshill House. 2. Stirling Castle. 3. Windsor Castle. These are the three historic buildings of the article, and many facts of interest can be found concerning them in cyclopædias and books of travel. 4. The Yule Log; what it was, when it was burned, and the curious customs connected with it. 5. What are the badge and motto of the Prince of Wales, and where were they won? 6. The story of "the unfortunate Queen of Bohemia," referred to in the article. 7. Who was King Henri Quatre of France? Some one might read Macaulay's fine poem, "Henry of Navarre," of which he is the hero.

At one club, a few weeks ago, a very pleasant afterpiece to the programme was given in "The Game of Twenty Questions." It was agreed that the subjects should be limited to persons, great or small, referred to in Greek History. One member chose a character, and the rest asked

questions, to which the only answer was "yes" or "no." Thus, the question "When did your character live?" was not in order; but "Was he living before the Persian war?" was answered "no." "Was he living during the Persian wars?" "No." That of course showed that it was one of the personages of later Greek history. Some of the answers were rather bewildering, but finally the secret came out that the subject was "The Woman who threw a Tile on the Head of Pyrrhus." A game of this kind will call up a large amount of the readings, and refresh the memories of all the members.

WE would suggest for reading, during May, in Miss Yonge's *History of Greece*, Chapters XXXIX. and XL. Special studies might be made in the following subjects: 1. The city of Corinth: its location and history; with a plan of the city drawn upon the blackboard. One may be found in Dr. Smith's *Student's History of Greece*, p. 448. 2. The city of Athens, presented in the same manner. 3. Paul's visit to Athens; with a reading of his address, from the Book of Acts. 4. The Emperor Diocletian; his division of the empire, and resignation of the throne. 5. Constantine the Great, and how he became a Christian. 6. A description of a Greek church. 7. The Emperor Theodosius. 8. St. Ambrose, how he became a bishop, and for what he is famous. 9. The separation of the Greek and Roman churches, and the difference between them.

WE hope that leaders or secretaries of clubs who have written to the Associate Superintendent, Dr. J. L. Hurlbut, will not be discouraged at the delay in answering their letters. The "Associate Superintendent" is a very busy man, and is compelled to write many letters beside those to C. Y. F. R. U. clubs; but they will come in their turn, and if received, will be duly answered. We would suggest, however, that on account of absence letters written after May 1st, may be compelled to wait until fall, unless they contain queries which require speedy attention.

SOME are already laying their plans for the summer. To such we suggest that the readings will give a pleasant occupation during the vacation months. So count in the C. Y. F. R. U. among the traps to be taken to the country.

Answers to Search-Questions should be addressed to Editors of WIDE AWAKE, 32 Franklin Street, Boston, Mass., with the words, "Search-Questions," in corner of envelope.

For titles of books to be given as prizes see the January number.

In reply to many inquiries: *We will receive answers to Search-Questions up to the date of the appearances of the printed answers, and will publish the names of senders, and allow prizes for correct complete lists.*

Complete lists of correct answers to the March Search-Questions have been received as follows:

Mrs. H. S. Blackmar, Chaut. Gleaners of Lynn, Mass. (Dana A. Sanborn, Sec.), L. M. Alexander, Clio C. Y. F. R. U. of Norwich, Conn. (Clara E. Harwood, Sec.), C. Y. F. R. U. of Nora, Ills. (J. S. Hubbard, Sec.), Justine Ausman, L. C. Mershon.

Partial lists and lists not wholly correct have been received from the following:

Mary W. Duren, Hurlbut C. Y. F. R. U. of Framingham, Mass. (F. B. Daniels, Sec.), Edith Foulke, C. Y. F. R. U. of Lawrence, Kansas (Katie L. Riggs, Sec.), C. Y. F. R. U. of Austin, Ill. (H. A. King, Pres.), Bertha Hampsted, Lou Moor, Ella M. Booth, Bessie Montgomery, Frank Field, C. Y. F. R. U. of Westfield, N. Y. (Alice E. Holt, Sec.), Edith L. Johnson, S. J. Fogg, Susie Currant, Emma N. Metcalf, Robbie E. Hill.

In addition to those already credited, correct lists of answers to the Search-Questions in February readings have been received from Maud and Gracie Wyman, Chaut. Gleaners of Lynn, Mass. (Dana A. Sanborn, Sec.), C. Y. F. R. U. of Lawrence, Kansas (Whitman Churchill, Sec.), Star C. Y. F. R. U. of Providence, R. I. (Nellie F. Alexander, Sec.), Ella M. Booth, "You and I Club" of Providence, R. I. (Bessie W. Olney, Sec.), H. S. Blackmar, Mary L. Clarke, Winifred T. Denison, M. Adelaide Love, Clio C. Y. F. R. U. of Norwich, Conn. (Clara E. Harwood, Sec.), Frank B. Frye, Mary Bidwell, Ethel M. Adams, Winifred Parker, Bertha Hampstead, Birdie Munger, W. C. Thompson, Jennie P. Young, Mistletoe C. Y. F. R. U. of Keene, N. H. (Bessie French, Sec.), Annette M. Dawes, Laura A. Puffer.

Additional partial lists of answers to the February Search-Questions have been received as follows:

Gertie Hendry, Belle Whelpley, Hattie Stockham, Fannie J. Packard, Lulu M. Davidson, C. Y. F. R. U. of McEngor, Iowa (Sadie Fleming, Sec.), Harlan C. Pearson, Ernest C. Wheeler, Sunshine C. Y. F. R. U. of Dorchester, Mass. (Anna W. Smith, Sec.), Manchester, Iowa (no name), Alma Keener, Julia K. Ordway, Susie F. Currant, Gertie Carnahan, Emily F. Pratt, C. Y. F. R. U. of Marshfield, Mass. (Henry J. Howland, Sec.), Lena Mathers, Mattie Bullis, Georgia Thompson, Ida Heysel, Luther Hatch, Mabel I. Hart, May F. Camp, Frances Sterrett, Eustis Towle, Maud and Ethel Saunders, May L. Scranton, Rocket C. Y. F. R. U. of Lebanon, O. (Viola M. Mull, Sec.), Emily C. Hall, Daisy Terrill, George W. Bryant, Harry Dow, Nellie Colfax Smith, New Leeds C. Y. F. R. U. of Elkton, Md. (Mary H. Little, Sec.), C. Y. F. R. U. circle of Nora, Ill. (L. F. Keeley, Sec.), Effie M. Thorndike.

In the Prize Competition, Third Series, Favorite Heroes, the Prizes have been awarded as follows:

First Prize, \$10.00, to William C. Congdon, Norwich, Conn.; Favorite Hero, George Washington.

Second Prize, \$5.00, to Miss Carrie Coggsell Howard, Buffalo, N. Y.; Favorite Hero, George Washington.

Third Prize, \$3.00, to Miss Margaret W. Leighton, Boston, Mass.; Favorite Hero, David Livingston.

Fourth Prize, \$2.00, to Miss Alice Underwood, Blandinsville, Illinois; Favorite Hero, William Cullen Bryant.

The First Prize Essay is both entertaining and logical in its array of incidents to prove that in Washington from early boyhood up there was a constant development of the qualities that go to the make-up of a first-class hero. Both his modesty and independence of character as a public man are dwelt upon, and his wonderful unselfishness is recognized.

The Second Prize Essay deserves praise for the finish of its style, and its symmetrical arrangement of facts and arguments.

The Third Prize Essay is a remarkable piece of narrative to come from the pen, or rather the type-writer of a girl of seventeen.

The Fourth Essay was awarded a Prize for the sparkling originality of its well-arranged matter.

The entire body of Essays in the Competition shows an advance in all respects upon those received in the WIDE AWAKE Historical Prize Competition of a few years ago.

Special praise for well-written Essays is due to James L. Morgan (*Washington*), Grace L. Robinson (*Oliver Cromwell*), William C. Thompson (*Napoleon Bonaparte*), Anna A. Day (*Lafayette*), John P. Deane (*Saint Paul*), Martha G. Adams (*Leonidas*), Robert W. Doughty (*Julius Caesar*), Nellie Furncliffe (*Major John Andre*), George F. Tilton (*Napoleon Bonaparte*), Hilo Vance (*Hannibal*), Frank H. Dixon (*Abraham Lincoln*), Lloyd H. Rickart (*David Livingstone*), Archibald H. Bradshaw (*George Washington*), Sadie Hinderliter (*Abigail Adams*), Mabel P. Osborne (*Abraham Lincoln*), Mary H. Settle (*Saint Paul*), F. Roland Clough (*Roland*), Melainie E. Norton (*Pegasus*), Laura B. Moore (*Perseus*), Frances Sterrett (*Richard the Lion-Hearted*), Will Perkins (*George Washington*), Mathilde Weil (*The Sentinel of Herculaneum*), John L. Clark (*Don Quixote*), — — — (*Stonewall Jackson*); Will author please send her address to Editors of WIDE AWAKE?

One little girl, twelve years old, writes thus vehemently of her Hero, Cromwell:

"He is *my* hero because he took up the cause of the common people and defied all of the proud, vain, wicked, cowardly cavaliers and their king. He detested the Stuarts, he saw how unjust they were; how the poor people were oppressed and the rich honored for their money, not their worthiness; he saw also how the good were killed, and the bad were brought into power, and many evils perpetrated, which his soul *hated*. Therefore he fought for justice, law and equality, and succeeded. Some have accused him of ambition. Well, and what is life without ambition!"

THE WIDE AWAKE POST-OFFICE.

The delighted readers of the WIDE AWAKE serial, "Down the Ravine," which ends in this number, will be amused to hear that its author, "Charles Egbert Craddock," is after all, a pretty young lady; and they will be interested to read something of the surprise which Boston editors felt when "Mr. Craddock" called at their offices. This account of it is from The *Boston Herald*:

One of the best-veiled literary identities since the time when George Eliot was supposed to be a man has been that of Charles Egbert Craddock, the writer of the beautiful and powerful stories of Tennessee mountain life that have appeared in the magazines for several years past. The announcement, therefore, that "Mr." Craddock was a woman and had been the cause of a great surprise to Dr. Holmes and Mr. Howells on meeting her at dinner at Mr. Aldrich's on Tuesday evening, caused a thorough sensation in literary circles. It has been known, though not generally, that Charles Egbert Craddock was a pseudonym, but no one can have suspected that the master of a style so strikingly masculine as that in these mountain tales was not a man. The secret has, until now, been well guarded, and publishers and editors have, in their dealings, addressed the author as Mr. M. N. Murfree, or M. N. Murfree, Esq., the observing editor choosing the latter form, taking it for granted that one who had so accurate a knowledge of legal methods as is shown in the stories must be a lawyer.

Charles Egbert Craddock has been a favorite contributor to the *Atlantic* for several years. Mr. Howells, when editor, was quick to perceive the striking quality of the stories. The first one printed was "The Dancin' Party at Harrison's Cove." When Mr. Aldrich became editor, he remembered this story, and his first act was to write to the author, asking for further contributions, meanwhile printing, as soon as possible, two stories which had been on hand some little time, unused in consequence of a press of other matter. Mr. Aldrich used to muse considerably over the personality of the author, and he once wrote asking how the latter could have become so intimate with the strange, quaint life of the mountaineers. He received a pleasant reply of several pages, which, however, did not throw much light upon the author's personality. The manuscript of "Mr." Craddock certainly had nothing feminine about it. It was almost startlingly vigorous, with large, bold characters, every letter as plain as print, and strikingly thick, black lines. Mr. Aldrich told Miss Murfree that he used to suppose that she wrote with one of those "dip" brushes, which the mountaineers use in their habit of "dipping snuff!" So liberal was the author in the use of ink that last fall, when Mr. Aldrich was about to write to ask for the powerful novel, "The Prophet of the Great Smoky Mountains," now running

in the *Atlantic*, he remarked: "I wonder if Craddock has laid in his winter's ink yet, so that I can get a serial out of him?" with the idea that Mr. Craddock must get his ink in large quantities, just as other people get their coal or flour.

Last Monday morning, as Mr. Aldrich was in the editorial room of the *Atlantic Monthly*, word was brought that a lady below wished to see him. He went down and met a pleasant young lady, who remarked that she was Charles Egbert Craddock. Mr. Aldrich could hardly have been more astounded had the roof fallen in, and he turned and ran several steps under the pressure of the shock, before he recovered his unusually imperturbable presence of mind. He would have been better prepared to find under that name a strapping six-foot Tennessean than the delicate looking lady before him.

Miss Murfree was born at Nashville, Tenn., but afterward removed to Murfreesboro, Tenn. She is the daughter of a prominent lawyer. Murfreesboro is the location of the novel, "Where the Battle Was Fought," and the windows of the house where the family lived up to two years ago overlook the battle ground. Two years ago Mr. Murfree moved with his family to St. Louis, where they now live. For a number of years, from childhood up, Miss Murfree was unable to use her feet, but her health is now much better, and she can get around with slight assistance. It seems little short of marvellous that under such circumstances the author should have been able to gain so intimate a knowledge of the life of the mountain folk and their almost inaccessible homes and environment.

With "Crazy Sally," Mrs. Frémont begins in this number her four "true Virginia stories;" they are episodes of her young girlhood and afford us glimpses of a way of living now utterly gone by, and almost as strange and foreign and romantic as the life depicted in Sir Walter Scott's novels.

Miss Edith W. Cook, the author of the illustrated Indian poem in this number of WIDE AWAKE, writes concerning it:

For the story of Wasis I am indebted to Mr. Leland's *Algonquin Legends* where it is given as told by Maria Saksis, a Penobscot Indian.

ROXBURY, Mass.

DEAR WIDE AWAKE:

The summer I am about to describe to you is a month spent in the White Mountains of New Hampshire; and we lodged at one of the hotels in Jefferson, N. H. I am only a little girl ten years old. I wrote this journal, so if it were ever

published it might give pleasure to others who have not been to these lovely places; and it would please me very much when you read my story to have you remember I am only a little girl. The time I was in New Hampshire was in 1883.

(*Brays Hill.*)

The first drive we took was to Brays Hill. It was about seven miles from our hotel, and we went in a mountain carriage with four horses. We had learned so much about this hill we expected to find a lovely place. And a lovely place it was, so that it quite reached our expectations. But it was very steep and rocky. It is sometimes called the Alp Hill by the farmers on account of the beautiful scenery. As the horses have to stay below on account of the steepness, one can hardly climb it because the rocks and stones are covered with mountain moss.

(*Mt. Prospect.*)

Mt. Prospect is in the northern part of New Hampshire. It was two thirds of a mile high, and was eight miles from the hotel we were staying at. The road led through the woods, and the trees were bright with autumn foliage, and creeping vines were clinging to the old stumps. We saw a lovely red farm-house and they had some poultry about the door which would have done all city boys and girls good to see; as we neared the top of the mountain we saw a large white house on the topmost peak. On top of the house was a railing and a flag. We went upon the roof and had a grand view of mountains in Canada, Vermont, and Maine. Soon after this we started for home. This time by another road where the foliage was still more lovely. On our way home we bought some flowers of a mountain flower girl.

(*Mt. Washington.*)

Mt. Washington is the highest peak in the White Mountains, and is in Coos County. It is the central peak of a range twenty miles long, beginning at Gorham, and extending to the White Mountain Notch. There is a railroad up the eastern side, and it is said that one thousand four hundred persons visit the mountain yearly. From our hotel we could see the cars going up on a clear day, though it was seventeen miles distant. I forgot to say that the scenery was perfectly beautiful.

(*North Conway.*)

North Conway is a lovely little village near the junction of the Portland and Ogdensburg Railroad, and is about one hundred and thirty-six miles from Boston. Mt. Kearsarge is on the northeast and Moat on the west. Mt. Washington range is on the north. Mt. Chocorua is ten miles from Conway and is quite noted for its steepness. The lovely village of Intervale is about three miles distant.

(*Glen.*)

The Glen House was fifteen miles from our hotel, and we went there in a mountain carriage with six horses. The

Glen is in Pinkham Notch. There is a nice view of Mts. Jefferson, Adams, Madison, and Washington. Four miles south of the Glen House are the Glen Ellis Falls. The Emerald and Garnet Falls are among the Glen's attractions. The Glen House itself is in a very lovely situation and there are many lovely little summer houses. The Glen House was burned last fall, and they are now building another.

(*Lancaster.*)

Lancaster was a seven-miles drive; it was a very hilly drive too. On the way we had to go over a very beautiful hill; the name of this hill is Bible Way. A rude pulpit was on a knoll and some one comes every Sunday in summer and preaches about God to the farmers. As we neared Lancaster we saw a number of houses scattered about. The stores were farther away and we did not see many. But I do not think there is a doubt but what you could buy boots at the dry goods store. But the crown of the place is the village green where they have dances in summer time. There was also a neat little hotel. I will not describe the drive home as we went home the same way we came.

(*Heart of the Mountains.*)

The Heart of the Mountains was about three quarters of an hour drive. This time we went on a buckboard with two horses. The Heart is all surrounded by mountains except in one place where looking in you see a stream that shines like silver running over a cataract. The scenery is beautiful and it is one of the grandest sights I ever saw.

(*Fabyan House.*)

The Fabyan House is six miles from the base of Mt. Washington. It is the railroad centre of the mountains. From Mt. Washington to the Notch is in full view. Mt. Deception, quite near the hotel, rises somewhat abruptly, but it is easily ascended and a nice view can be had from the top.

(*Crawford House.*)

The Crawford House stands near the entrance of the Notch, and is four miles from the Fabyan House. Among the points of interest there are Saco Lake, Elephant's Head, Silver and Flume Cascades.

(*Franconia Notch.*)

The Franconia Notch lies about twenty miles west of Mt. Washington and is in a deep gorge between Mts. Lafayette and Cannon. One of the most famous objects in the Notch is the Old Man in the Mountain, which is a human face formed by three masses of rock on the side of Mt. Cannon; the length of the face from forehead to chin is about forty-nine feet.

(*The Flume.*)

The Flume is about six miles south of the Profile House, and is a narrow chasm in the solid rock; it is several hun-

dred feet long and fifty feet deep. Near the head it is only about ten feet wide, and at that point a large boulder hangs suspended between the walls. There is a hotel about a mile distant. Two years ago to the amazement of everybody, the large boulder fell down into the chasm.

(Jefferson.)

Jefferson is a village on the slope of Mt. Starr King. There are a number of hotels at Jefferson Village and Highlands. It is three miles from the railroad. The drives are lovely, and the drive from Gorham to Jefferson is unsurpassed in the mountains for grandeur of scenery. There is a foot path up Mt. Starr King.

(Mt. Shaw.)

Mt. Shaw is a lovely mountain ten miles from Centre Harbor. There is a lovely park with grottos, and it is owned by Mr. Shaw. There is no hotel, so it is generally picnic parties that visit this mountain. Here you have a good view of the Presidential range, and of Centre Harbor.

(Stag's Hollow.)

Stag's Hollow is a lovely place nestled among the White Mountains. It was about four miles from our hotel, and the road led through the woods. It was in the time of blackberries, and the bushes were thick, and we got out many a time to gather them and pick the lovely wild flowers that grow by the road.

(Home Again.)

We went home by the Boston, Concord and Montreal Railroad, stopped at Plymouth for our dinner. We started at 7 A. M. from Jefferson, and reached home at 8 P. M. We were to have reached home at five o'clock, but the train was belated; it was the largest train that ever left Plymouth.

SALLY ROBINSON WOODBERRY.

The friend who enclosed the following funny little "Pamphlet" to the WIDE AWAKE Post-office, writes in explanation:

It was found on the floor of the playroom where it had been dropped by the little girl who wrote it, and was, I found, one of a series of "Pamphlets," so called, for the instruction of cats, birds, squirrels, etc. It showed, I thought, some little observation. I give it to you as it was written and spelled.

Pamphlet of Instructions in Rat-and-Mice Catching, in 4 easy lessons.

LESSON I.

Suppose the kitten's mother is not a good hunter and the kit must depend on himself for food.

1. Crouch to the ground and tremble.
2. Tremble violently.
3. Spring.
4. Pick up daintily in your mouth.
5. Drop it and push it about with your paw.
6. Tumble it over and be sure to follow directions 2 and 3.

(Turn over to Lesson II.)

NOTE. The above, as any mother can see, teaches the little ones the first movements in the art of Rat-catching.

LESSON II.

1. Stand perfectly still and slowly raise one paw and strike it.
2. Then lower your head and turn over it, and repeat several times.
3. Don't be stingy with it.
4. In eating the mouse take by one ear and carefully lift it, bite off the ear and daintily eat it.
5. Your mother can show you about the way of eating it.
6. If your mother prefers you to have a teacher for this, a good stray cat makes one.

(Turn over to Lesson III.)

LESSON III.

1. A good stray cat is the best of teachers in this, especially if the kit is not graceful.
2. A kit that is not graceful ought to practice daily.
3. I should advise in the tumbling over the mouse, that the kitten, the first few times, have a boost from the mother or teacher.
4. It often happens that a kit has no instructor; if so come to the Cat of Diamonds and Pearls, Pinky White on — Street.

(Turn over to Lesson IV.)

LESSON IV.

1. Every little cat in the land would like to hear of Richard White kitten, the Kitten of the Diamonds and Pearls. His stepmother teaches him from this Pamphlet. Richard is a very dilligent scholar and does his stepmother credit. Little kits like you should learn a lesson in diligence from Richard White.

2. Be sure to take the eyes of the mouse out before eating. They are poisonous. This is done by eating away the part around the eyes, being sure not to touch them.

To dear little Richard White this book is affectionately dedicated, from his friend,

ALIX.

ELLSWORTH, Kansas.

DEAR WIDE AWAKE:

This is the first year I have taken you and I like you very much. I read most all the time except when at school. I would like to correspond with the WIDE AWAKE girls. I was twelve years old the first of October. I like the stories of "A Brave Girl," "Down the Ravine," and "In No-Man's Land." I like music very much. I am learning quite well. I have a large doll, nearly as large as a baby. I would like

to correspond with some of the WIDE AWAKE girls. I would like to have Lizzie Miller write to me, also I would like to have some of the little girls of my age write to me. I will give Josie Knights a very nice name for a doll. It is a very pretty name — Ristori — and also another — you can leave off the Queen, if you wish to: Queen Matilda Caroline. Valiska is said to be a French name, though it sounds Polish.

MAHEL P. HEPPERLY.

HINGHAM, Mass.

DEAR WIDE AWAKE:

I have taken you one year. I think you are splendid. I like "The Bubbling Teapot," "Our Venture," and "What We did with Our Money," very much. I go to dancing-school and take music lessons; two of my favorite pieces are "The Danube River" and "Martha." I am nine years old. I have a collection of five hundred and ninety stamps. I have four brothers and sisters. We have a dog named Max and a kitten called Frisky. We have a horse too. have splendid times in summer.

SALLIE M. WARE.

OLYPHANT, Pa.

DEAR WIDE AWAKE:

I saw a letter in your March number from Elizabeth Tapley and Helen Harvey, saying they would like to correspond with some of the WIDE AWAKE readers. I would like to correspond with them. I would also like to correspond with Flora P. Brown of Concord, N. H.

MAY DAVID, (13.)

BARRE, Mass.

DEAR WIDE AWAKE:

We began to take the WIDE AWAKE this year and enjoy it very much. We enjoy history and consequently "Children of Westminster Abbey" and "In Leisler's Times." We would like to correspond with Helen Harvey and Elizabeth Tapley.

(15 years.) FLORENCE BAILEY.

(14 years.) HELEN BAILEY.

PITTSBURG, Pa.

DEAR WIDE AWAKE:

I have been taking you for nearly two years, and I enjoy reading you very much. One year I got you for a Christmas present, and this year papa is subscribing for you, of which I am very glad. I live in a very dirty city, some people call it "The Smoky City," nevertheless it is a great manufacturing city, and it may be clean after awhile, by the use of the natural gas, which has been discovered lately. Some houses are using it, and many foundries and other buildings. The largest gas well illuminates a great part of both Alleghany and Pittsburg. I go to school in Pittsburg, which is across the bridge from Alleghany. One of my studies is mythology, and I think it is a very interesting book.

BESSIE S. G.

CRAWFORD, N. J.

DEAR WIDE AWAKE:

It is about time that I should thank those who were so kind as to respond to my request for scrap pictures through the WIDE AWAKE Post-office. I believe I answered all those who wished postmarks; but I was away from home when most of them came, so maybe some were overlooked, if so I thank them now for their generous responses and good wishes. Along in the fall I got time to commence on them; but when I began I looked with dismay on the big pile of pictures. With some help from my sisters, I finished ten, cram-full; but there seems to be about as many left waiting for another leisure time. I sent them to New York City to be distributed to the hospitals. I have gained two very pleasant correspondents, for which I heartily thank the WIDE AWAKE, as I am very fond of letters.

Last Saturday I made some chocolate cream drops after one of WIDE AWAKE receipts; they were lovely, pronounced by all equal to any bought ones. I had to call on mamma's help to "beat like fun" as my arm was rather tired from baking pies, cake, etc. all the morning, and she and the rest volunteered their help to eat them.

FLORENCE WILCOX.

WINTER PARK, Fla.

DEAR WIDE AWAKE:

I live in the best place in Florida — and in the world. At least so say I, and so say all the people who have been here. While you have colds, and snowstorms, and the thermometer below zero, we have delightful weather, cool breezes, oranges, and beautiful scenery. When I saw in the Winter Park Circular all the praises of the scenery, lakes, climate, and heathfulness of the place, I could not believe it; but when I came here I found that "the half had not been told." At the Congregational Association at Orange City, they decided that they *must* have a college in Florida, and the question now is, "Where shall it be?" I do not think there is a place in Florida that does not want it to be there, and a great many people and places have pledged money to be given if it comes to their place. Winter Park is *undoubtedly* the best place, for it is very healthy, which is more than can be said of the other places. There is a hotel here, but it is cram-full every season, and a large new one is to be built soon.

I think the WIDE AWAKE is a *splendid* paper. I should be very happy to receive and answer letters, if any one cares to write.

BESSIE HOOKER.

EDITOR OF WIDE AWAKE:

Will you or some of the WIDE AWAKE readers please tell me the name and the place I can get it, of a really good English History Game; I am studying the History of England and wish the Game to help me remember it. I will thank very much any one who will tell me through the WIDE AWAKE of a good game.

M. B. G.

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3. **Kitty Kent's Troubles**, by Julia A. Eastman.
4. **Mrs. Hurd's Niece**, by Ella Farman, Editor of WIDE AWAKE.
5. **Evening Rest**, by J. L. Pratt.
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7. **Shining Hours.** "Shining Hours" is by a brilliant author whose name is withheld from the public, but it is a book of great beauty and promises greater things in the future.
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MANY COLORED THREADS. From the Writings of Goethe. Selected by Carrie Adelaide Cooke. With an Introduction by Rev. Alexander McKenzie, D. D. Boston: D. Lothrop & Co. Price \$1.00. No other volume of the Spare Minute Series contains more real meat than this. Goethe was epigrammatic, and his ideas took the concentrated form of four bullets, instead of scattering like shot. We doubt if there is another author, always excepting Shakespeare, from whose books so many noble and complete thoughts can be extracted. In the two hundred and fifty pages of this volume are more than a thousand of these gems, each worthy its setting. Dr. McKenzie says aptly of Goethe that he is able by virtue of his own genius to see more than the common man and to put his visions and his reflections in such form that others who would never have seen the things for themselves, or been able to think deeply upon them, can have the benefit of his generous study and thought. He was many-sided. His mind took a wide range and seemed almost equally at home in many places. The real and the ideal both interested him and were cherished by him. Science and art, philosophy and poetry, engaged his attention and were enriched by his handiwork. In this versatility of his powers and the manifoldness of their application he was remarkable. Out of this breadth of study came varied and large thoughts of the world and of human life. He had the faculties with which nature and humanity and divine power could breathe their inspiration for the world's instruction and delight, and that they were fully employed no one who turns over the pages of this collection can doubt. A brief biography of Goethe takes the place of a preface, and there is an index of subjects.

GERTRUDE'S DIARY. By Pansy. Illustrated. Boston: D. Lothrop & Co. Price 60 cts. A new book by Pansy is always hailed with delight, and that delight generally mingled with wonder that an author can write so much and yet keep the freshness and brightness which runs through all her books. Gertrude is a girl of fifteen, wide awake, full of life, generally good tempered, and yet with as many faults as most girls of her age have; faults which arise more from thoughtlessness than from intent. She is one of four who agree to keep diaries, in accordance with a suggestion made by their Sunday-school teacher, and she records with impartiality all her good and bad times, her trials and her triumphs. Aside from its interest, it contains suggestions which cannot fail to make an impression upon the mind of any young girl who reads it, and to strengthen her in like temptations and under the same conditions. A pleasant story runs through the diary.

Views of the Hon. Wm. Penn Nixon.

Mr. Nixon is widely known as the editor of *The Chicago Inter-Ocean*, one of the most outspoken and spirited dailies of the present age. Like many other busy editors, Mr. Nixon over-worked himself, and about six years ago found that his health was gradually running down. His business associates and his family felt that he was in a perilous condition, and urged him to take rest—giving up, for a while, all editorial labor. His natural ambition and his long habits of diligent work were against this. Declining the suggestion of a vacation, he kept at his desk. At last, after fighting for some months with the condition of his system, which was gradually undermining his vitality, Mr. Nixon concluded to take a few weeks of rest. Of that rest and of what followed it we will let him tell, in his own words, as communicated to one of our correspondents, who recently visited him at his editorial rooms in Chicago.

Mr. Nixon, who now appears in the prime of life, and in the full vigor of bodily and mental vitality, said, substantially: "It was in February, 1878, that I took a severe cold. My system had become much worked down, and, driven with constant editorial duty, I had neglected it. After long consideration I concluded to take needed rest. I went to Florida and Cuba for a few weeks. On the way I had several hemorrhages from the lungs. I was quite sick and returned in no better condition than before. My wife was much alarmed about me. The physician who attended me on my return gave me inhalations, tonics, alteratives and pills; after taking which, for about two weeks, I was weaker. I kept at my work, which was exacting. By September my state had become critical. I lost flesh and suffered from a severe soreness in the upper part of my right lung. My wife's sister, who was in Boston, wrote about a treatment which was novel to me—Compound Oxygen. A relative of hers who had been in such poor health that he had been compelled to spend several winters in Florida, had been restored by this Compound Oxygen to such an extent that he was able to endure the climate of Boston in winter. The little book issued by Starkey & Palen on Compound Oxygen was sent me, and after reading it I concluded that even if their method of treating my ailments could do me no good, there was reason to suppose that it would do me no harm.

"I procured a 'Home Treatment' from the office of Messrs. Starkey and Palen, in Philadelphia, determining to give it a fair trial, and abide the result. For four or five months I took the inhalations at regular intervals, twice a day; continuing my work steadily. At first no marked effect was observed; in fact, not until three or four weeks. Then I began to feel that it was doing me good. I found that when I was exposed to the cold, and to chilling drafts, my power of resistance was far greater than it had been. There was no exhilaration, but there was a constant increase of strength. I still coughed considerably, and, in fact, did so for some months. The sore spot on my right lung gave me much annoyance. I rubbed my chest with various linaments, and I wore a chest-protector. But gradually the soreness went away, as the lung gained strength. And the cough, which had so long clung to me, at last went off in an unexpected manner. One of the last coughing-spells I had was almost as severe and extended as any I had ever experienced. It seemed to be the going out of the cough-habit. There was probably some extraneous matter in the way, and this severe spell of coughing got rid of it.

"I gained flesh very slowly, but gradually came back to my original weight, and now weigh more than before my illness. I am more able to resist cold, and, though I now take cold occasionally, I am far less subject to it than I was of old. My digestion which was, of course, disordered, is now all that I can desire, and I am able to do my customary work without inconvenience or serious fatigue. I have never given a testimonial to any patent medicine, and I would not; but I do not consider Starkey & Palen's Compound Oxygen a patent medicine. It is a vitalizer and a restorer, and to it I owe my life."

"Mr. Nixon, did you ever take any other 'Oxygen Treatment' than that of Messrs. Starkey & Palen?"

"No; I had no use for any other. This served the purpose perfectly, and did even more than I could have expected of it."

"Do you ever have occasion to return to the use of the Compound Oxygen Treatment since your restoration to health?"

"Only occasionally; for instance, if I have been exposed, and have taken cold. But I keep a 'Home Treatment' in my family, for we set a high value on its efficiency in cases of need, and several of my friends have found the advantage of it. You may put me on record as being a hearty and thorough believer in it."

Mr. Nixon's case is not a peculiar one. Thousands have been benefited by the use of Compound Oxygen. Among those who have experienced its wonderful curative properties, are Judge Flanders, of New York, Edward L. Wilson, the popular lecturer and photographer, and Judge Kelley, of Philadelphia, Mrs. Mary A. Livermore, the eminent lecturer, and many others equally prominent.

If you are interested to know what it has done for others, and what it can do for you, send to Drs. Starkey & Palen, 1109 Girard St., Philadelphia, who will send you free a treatise on this remarkable vitalizer—its discovery, nature, action and cures.

C. Y. F. R. U. COURSE.

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WIDE AWAKE

VOLUME U



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THE CHILDREN OF WESTMINSTER ABBEY.

BY ROSE G. KINGSLEY.

IX.

HENRY FREDERICK, PRINCE OF WALES (*continued*).

ALL English and American children have heard of the Fifth of November. It was a day of mingled terror and delight in our childhood. Just at dusk a band of men and boys used to tramp down the road, and gather close under the windows. They were armed with guns, and bore on poles a chair upon which was seated a hideous life-size effigy of a man, dressed in an old tattered coat and battered tall hat. Then they began in sepulchral voices to repeat the following words, very fast, with no stops, and in broad Hampshire dialect:

Remember, remember the fifth of November
Gunpowder trayson and plot.
I know no rayson why gunpowder trayson
Ever should be forgot.

Old Guy Fox and his companions,
With fifty-two barrels of gunpowder
To blow old England up.
Look into your pocket, there's a little chink,
Pray pull it up and give us some drink;
All we wants is a little more money
To kindle our old Bonfire.
If you won't give us one bavven* we'll take two,
The better for we and the wuss for you.

Holler, boys, holler, boys, God save the King!
Holler, boys, holler, boys make the house ring.
Hip! Hip! hip! Hoorah!†

And "holler" they did. While the children, knowing what was coming, cowered shuddering inside the window curtains, frightened to death, and yet so fascinated with horror they were obliged to look. "Bang, bang, bang" went all the guns, fired up into the air round old Guy, with tremendous shouts. But that was not all. In the evening the huge bonfire twenty feet high down on the Common, for which all the men and boys had been begging

*"Bavin." Hampshire for faggot.

† There are many different versions of this old rhyme in the different counties of England. I give the Hampshire one exactly as it is used.

"bavins" or cutting furze for days, was lighted. And round it every one in the parish assembled.

Ah! the delights of Bonfire Night! the thrill of excitement as the match was applied to a heap of well-dried sticks and straw in a sheltered hole on the leeward side. The yells of joy as the furze caught and crackled as only furze can crackle, and the flames ran up the sides of the stack and lit up Guy Fawkes, whose effigy, after going the rounds of the parish, was at length deposited on the top of the bonfire; the cloud of sparks that streamed out from the cracking, snapping pile; the squibs and crackers that everybody threw at everybody else; and then the climax, when the fire reached old Guy himself, and with a mighty heave the old fellow sank into his fiery grave in the centre of the bonfire, the squibs in his hat exploding like a round of musketry, and a roar rose from the good Hampshire throats as the whole burning mass collapsed while the flames rushed up fiercely with one last effort high into the foggy air. Then the good-nights, and the walk home, our hair and clothes smelling of smoke, and our eyes so dazzled that we stumbled and staggered along, across the Common, while the shouts of the boys, dancing about the embers of the great fire, gradually died away in the distance.

What can all this have to do with Prince Henry you may ask?

A great deal, we answer. For these bonfires all over England on the Fifth of November commemorate an event in James the First's reign which had a great effect on our young hero's mind.

Certain persons in England, who hated King James for his hard treatment of the Roman Catholic party, resolved to take the law into their own hands. They thought that if the king, Prince Henry, and the Parliament could be destroyed at one blow, they might take possession of Prince Charles and Princess Elizabeth, bring about a revolution and put the government into the hands of the Roman Catholics who would be helped by Spain. Robert Catesby was the chief of the conspirators; and for eighteen months he and a small band of desperate men worked in the utmost se-

crecy at their hideous scheme. The day chosen for its accomplishment was the fifth of November, 1605, the day on which Parliament met at Westminster. Everything was in readiness. Thirty-six barrels of gunpowder (not fifty-two as the Hampshire rhyme has it) were stored beneath the Parliament House. And Guido Fawkes, a daring adventurer, was in waiting in the cellar to set a light to them, and blow up King, Prince, and Parliament. But at the last moment, in spite of all their well-laid plans, in spite of all their wonderful secrecy, the plot leaked out. Lord Monteagle, a Roman Catholic Peer, received a mysterious warning from Tresham, one of the conspirators, whose courage failed him. Mont-



HENRY FREDERICK, PRINCE OF WALES.

eagle instantly told the Earl of Salisbury and the king. At midnight on the eve of the fifth, the cellars under the Parliament House were searched. There was Guido Fawkes, with touchwood and matches upon him, only waiting for the signal which was to be given him in a few hours. He was seized, dragged before the king and consigned to the Tower. The great heap of wood and coals in the cellar was torn down, and the barrels of gunpowder found beneath it. The conspirators fled. All Protestant England was roused to a frenzy of horror and dread at the discovery of such a fearful crime. The guilty men were chased from county to county, till at last all of them were either killed fighting, or captured and brought next year to the block. And thus ended the Gunpowder Plot. But

its memory is still kept alive in England by the yearly bonfires and fireworks and Guy Fawkes processions of the Fifth of November.

This escape from a sudden and dreadful death, affected Prince Henry deeply. He was a boy of strong religious feelings. And from this time he never suffered any business to keep him from hearing a sermon every Tuesday, which was the day of the week on which the Gunpowder Plot was to have been carried out. But hearing of sermons was not the only sign of Prince Henry's piety. He was diligent in his own private prayers, generally going apart three times a day to pray quietly by himself. He was most careful too of the good behavior of his household. And above all things he had a horror of profane swearing. At his three palaces, St. James's in London, Richmond, and Nonsuch, he ordered boxes to be kept for the fines he exacted from all those who used bad words; and this money was given to the poor.

The prince was keenly interested in all foreign countries, and kept himself well informed upon their politics and customs by the large correspondence he now carried on with distinguished persons both at home and abroad. When he was just thirteen his curiosity caused no little amusement at the French Court. Prince Henry had long wished for an opportunity of learning something about the fortifications of Calais. And when the Prince de Joinville, who had been on a visit to England, returned to Paris, Henry sent an engineer of his own in the French prince's train, who made a careful examination of Calais and of the Rix-bank. This came to the ears of the French ambassador, who wrote in hot haste to the Court at Fontainebleau and to the Governor of Calais. But Henri Quatre was only entertained at the boyish inquisitiveness of his young cousin, and sent back word that he did not consider the occurrence betokened any dangerous designs upon the kingdom of France.

A far more important report was sent in to the prince in the same year by his gunner, Mr. Robert Tindal. This gunner was employed by the Virginia Company, established in 1606, to make a voyage to America. He set out on December 19, 1606, with Captain Christopher Newport, in a fleet of three ships, and arrived at Chesapeake Bay about the beginning of May, 1607. A letter which he wrote to the prince on his arrival is in the Harleian collection of MSS., together with his journal of the voyage and a map of the James River. In his letter, dated Jamestown in Virginia, the twenty-second of June, 1607, he says:

That this river was discovered by his fellow-adventurers, and that no Christian had ever been there before; and that they were safely arrived and settled in that country, which they found to be in itself most fruitful, and of which they had taken a real and public possession in the name and to the use of the King his Highness's father.*

* Birch. p. 91.

It seems to bring our young prince nearer to American children, to know that his youthful imagination was fired by accounts of the wonderful unexplored Western land — to think of him poring over the map of Richmond and the beautiful James River. What would he have thought, could he have foreseen a tithe of the wonders which have come to pass on those Transatlantic shores — the marvels of modern civilization, the railroads stretching away into the wilderness of which Robert Tindal only saw the outskirts, the telegraph lines that bind together Europe and America, and, above all, the great nation that has grown out of the first bands of hardy adventurers who went out to Virginia with the prince's gunner, or who fled from King James's stern rule a few years later to the bleak New England coast.

The account of these distant voyages must have been especially interesting to Prince Henry, for of all matters pertaining to the welfare of his country that which occupied his attention most was the British Navy. Sir Walter Raleigh was the young prince's close friend. From his childhood the boy attached himself to the last of the Elizabethan heroes, visiting him in his prison in the Tower, and taking council with him as he grew older on all matters of war and seamanship. He made many efforts to obtain Raleigh's release, and is reported to have said that "*no king but his father would have kept such a bird in a cage.*" But it was in vain; and the prince was happily spared the shame of seeing his glorious friend die on the scaffold, a sacrifice to Spain — the very power from which Raleigh had fought and toiled to save his country in Elizabeth's days. When Henry was ten years old, the Lord High Admiral Howard ordered a little ship to be built for the prince's instruction and amusement, by Phineas Pett, one of the Royal shipwrights at Chatham. This ship was twenty-eight feet long by twelve wide, "adorned with painting and carving, both within board and without." Can you imagine a more delightful possession for a boy of ten than this beautiful little ship, gay with ensigns and pennants? No wonder that he "shewed great delight in viewing" her, when she was brought to anchor outside the Tower where he and the king were then lodging. And his delight must have increased when he went on board her at Whitehall a few days later, accompanied by the Lord Admiral, Lord Worcester, and various other noblemen.

They immediately weighed, and fell down as far as Paul's Wharf, under both topsails and foresail, and there coming to anchor, his Highness, in the usual form, baptized the ship with a great bowl of wine, giving her the name of *Disdain*.*

Mr. Pett, the builder, was on board; and the prince took him at once into his service, and formed a warm friendship with him.

* Birch. p. 39.

In January, 1610, Prince Henry gave a great banquet to his father at St. James's Palace, where he now kept his separate Court and gathered round him the most promising young men in the kingdom. The banquet was preceded by a tourney at Whitehall, in which the prince took part, in the presence of the king and queen, the foreign ambassadors and all the greatest personages of the realm. Princess Elizabeth helped her brother to do the honors of the banquet, and distributed the prizes won at the tilting match, which were trinkets garnished with diamonds, the king handing them to her. The banquet was not over till ten at night; by which time King James, who was easily bored, especially with anything done by his son, had gone away. But Henry and Elizabeth, full of the enjoyment of young hosts, went off to a comedy which lasted two hours, and then returned to the gallery, where a fresh supper had been set. It was a most gorgeous affair. The crystal dishes were filled with sweetmeats of all shapes — fountains of rosewater, windmills, dryads, soldiers on horseback, pleasure gardens, the planetary system, etc. Prince Henry led his sister twice round the table to see all these marvels, and they then departed, leaving the company to their own devices. A most crazy company it must have been. For, no sooner had the prince and princess gone, than "the guests scrambled for the plunder, broke down the table and carried off, not only the supper, but all it was served in, to the very water bottles."*

In this same year Henry was created Prince of Wales. This was the occasion for further display, such as King James delighted in. There were processions of barges on the river, banquets, splendid dresses, tilting matches in the Tiltyard, and a solemn and magnificent ceremony "within the great white chamber in the palace of Westminster," when, in the presence of both Houses of Parliament and an immense company, the prince was declared Prince of Great Britain and Wales. Robed in purple velvet he knelt before the king, who gave him with his own hands the crown, the sword, the ring, and the gold rod of the principality over which Llewellyn once ruled. A very gallant young figure must our prince have been. He was sixteen years old; a tall, well-made lad, with somewhat broad shoulders and a small waist. His hair was auburn; his face long, with a broad forehead; "a piercing eye; a most gracious smile, with a terrible frown."

Henry had some years before been created Duke of Cornwall. And although these titles and dignities sound very grand and imposing for a boy of sixteen, yet his father's warning was fulfilled in his case. "The augmentation of honours that fell to him, was but in cares and heavy burthens." He was not merely a ruler in name. He managed his estates well and wisely. Not only were his

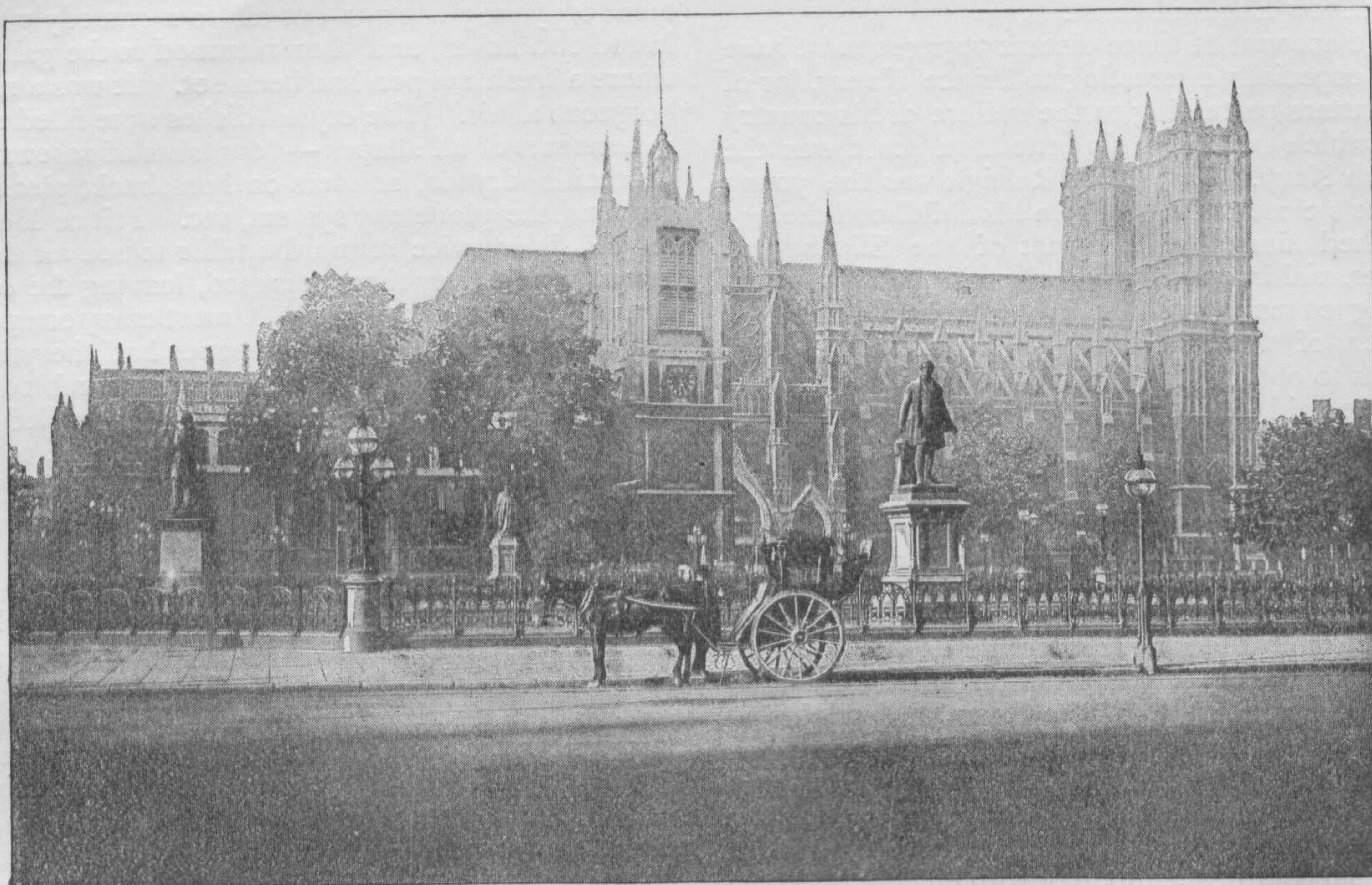
* Green's Princesses. Vol. 5. p. 170.

tenants more contented and happy, and better off than they had ever been before; but by his good management he so improved the value of his lands, that they brought him in an immensely increased revenue.

Besides the three palaces we have mentioned, Prince Henry purchased with his own money, in 1612, beautiful Kenilworth Castle in Warwickshire, from the widow of the famous Earl of Leicester. And in the same year King James gave his son another house connected closely with the story of Leicester and Amy Robsart—Woodstock Manor in Oxfordshire. But the prince's days were numbered, and as far as we know he never visited his new purchase of Kenilworth. His health was not in

from Richmond to Belvoir Castle, to meet the king who was on a great progress—riding sixty miles the first day in nine hours. The progress ended at Woodstock, where the prince entertained his father and mother and Princess Elizabeth, after making several hasty and fatiguing journeys thither to see that all was in order in his new manor. He then returned to Richmond and busied himself with preparations for the coming of the young Elector Palatine, on whose marriage with Princess Elizabeth all Henry's hopes were fixed.

The Elector arrived. But already Prince Henry was seriously ill. However his "pluck," as we should say now, carried him on for a time. He removed with his court to St. James's to receive



WESTMINSTER ABBEY FROM THE NORTH.

a satisfactory state in this year of 1612, and he was careless about it. While he was staying at his palace of Richmond in June, he took great delight in swimming in the Thames after supper on the warm summer evenings; a most dangerous practice for any one. His attendants besought him to give it up. But he, like most of the Stuarts, was fond of his own way. He was deaf to all entreaties, and went on with his swimming. He also took much pleasure in walking beside the Thames in the moonlight, "to hear the sound and echo of the trumpets," regardless of the evening dews which rose cold and damp along the river. Then in exceedingly hot weather, he made a desperate journey on horseback, of ninety-six miles in two days,

the young Elector, for whom he conceived a great friendship. He even played a tennis match with his future brother-in-law on the twenty-fourth of October. But the next day he was much worse, and could with difficulty manage to go to church (it was a Sunday), and dine afterwards with the king. This was the last time he went out; for in the afternoon he was seized with sudden faintness and sickness and had to take his leave. That night he was in a burning fever. The ignorant physicians of those days mismanaged him hopelessly. Some of their remedies to lower the fever sound almost too absurd to be treated seriously—such as a cock, newly-killed, split down the back and applied all reeking hot to the soles of his feet.

Raleigh from his prison sent him a cordial, which the old hero's enemies of course pretended was poison. However after it had been duly tested, the prince was allowed to take it, and it gave him temporary relief. But nothing availed. He grew worse and worse. His faithful friend, Archbishop Abbot, came to him and prayed with him. The fever increased in violence. And on the fifth of November, the anniversary of the Gunpowder Plot, the archbishop told the prince of his extreme danger, and asked him if he should die, "whether or no he was well pleased to submit himself to the will of God?" To which the prince replied, "with all his heart."

A few hours later the end was near. Henry was past speaking; and the archbishop, leaning over him, called upon him to believe, to hope and trust only in Christ. He then spoke louder:

Sir, hear you me, hear you me, hear you me. If you hear me, in certain sign of your faith and hope in the blessed resurrection, give us, for our comfort, a sign by lifting up your hands. This the prince did, lifting up both his hands together.

And the archbishop with bitter tears, poured out by his Highness's bedside, a most pathetic prayer. At a quarter before eight that evening the hopes of the country were gone. Henry, Prince of Wales, was dead, who, had he lived, might have changed the whole course of events in English history during the seventeenth century. And the heir to the crown was Charles, Duke of York, destined within forty years to die upon the scaffold.

While our gallant young prince lay dying, the king showed himself as selfish and indifferent as we might expect. He came once to visit his son; but fearing that the fever might be contagious, he went away without seeing him, and retired to Theobalds, Lord Salisbury's estate. The Princess Elizabeth was kept away from the prince for the same reason. But she tried her best to see him, coming disguised in the evening to St. James's and

endeavoring to gain access, but in vain, to her dearly-loved brother, who asked for her constantly during his illness—almost his last intelligible words being, "Where is my dear sister?"

But if his father showed want of feeling, the whole English nation mourned their young prince. He was buried at Westminster Abbey on the seventh of December, with all possible pomp. Prince Charles and the Elector Palatine were the chief mourners, attended by a train of two thousand mourners. Through the streets, thronged with weeping people, wound the great procession, with banners carried by nobles, led horses draped in black bearing the scutcheons of the prince's different titles and estates, all the notables of England and Scotland, clergy and peers, privy councillors and ambassadors. Then came the funeral car bearing the coffin, on which lay a beautiful effigy of the prince, dressed in his state robes; and the sight of it "caused a fearful outcry among the people, as if they felt their own ruin in that loss."*

Henry, Prince of Wales, was laid to rest in the south aisle of Henry the Seventh's Chapel, in the vault which had just been made to receive his grandmother, the unhappy Mary, Queen of Scots, whose body had been removed there a month before. Over Mary's grave King James erected a monument even more magnificent than Queen Elizabeth's in the north aisle. Yet not a thought did the selfish father give to the grave of his son.

But Prince Henry's memorial is a less perishable one than "brass or stony monument." He has left behind him a memory fragrant with all that makes youth lovely and manhood noble, the record of a pure and good life, which will last, as the memory of every good life must last, when stone and marble has crumbled to dust.

* State Papers. Dec. 19, 1612.

NOTE.—While writing the above words on Gunpowder Plot, Jan. 24, 1885, Westminster Hall, the House of Commons and the White Tower in the Tower of London, all closely connected with the histories of these children of Westminster, were partially wrecked by "forces"—to use the words of an Austrian writer—"such as to make those of Guy Fawkes' time look almost childish."

SOUVENIRS OF MY TIME.

BY MRS. JESSIE BENTON FREMONT.

IX.

SAINT LOUIS.

COMING back to Saint Louis always in spring-time, even after the mild winters of Washington the contrast was charming. The Potomac

was a wide and beautifully blue river, but it did nothing, and was nothing more than a feature in the landscape, while here the tawny swift Mississippi was stirring with busy life, and the little city itself was animated from its thronged river-bank out through to the Indian camps on the rolling prairie back of the town.

And it was such an embowered fragrant place in that season; the thickets of wild plum and the wild crab-apples which covered the prairie embalmed the air, and everywhere was the honey-scent of the locust. What the elm is to some New England towns the locust was to Saint Louis; the narrow streets were bordered by them and they were repeated everywhere. My father had an affection for this tree and had planted a great many about his house when he first settled there—long before he was married. In my young day these were fine large trees. A line of them made a delicate green screen to the long galleries which ran the length of the house, on both stories, and their long clusters of vanilla-scented blooms made part of our home-memories. Years after, in California, this delicate intangible link made a curious adventure for me with a person no one ever connected before with any good or gentle idea. It is a severe pull on my natural tendency to digress not to tell it now, but I will “in its place,” for it shows how loyally my father was remembered by old Missourians.

Not only did the blossoming town seem *en fête*, but everybody seemed light and gay, and my father, freed from the official and exacting life of Washington, reverted to his cheerful active out-door life. The long gallery of the parlor-floor was his place when at home, even if light rains were falling. He never breathed in-door air when he could be, head uncovered, in a bath of sunshine. His “settee” and a table, and “a colony of chairs” for others, made his favorite settlement, where the early light breakfast of coffee and bread and fruit was taken—by any number who might chance to come. I never heard the word “trouble” applied to household arrangements. For all we knew, everything grew ready to be served.

The day begins early in warm climates, and from early morning on there was a coming and going of varied but all welcome friends. There came governing citizens to talk of political affairs. Much had to be only personal information in those days before railways and telegraphs, and when the plans of an administration were only talked over confidentially with its friends. The father of Mrs. Grant was one of my father’s old friends and political allies of that time. General Grant honored himself by the honor and thoughtful attention he always gave to this venerable man who was a conspicuous figure in the Presidential receptions. After I had made my respects to the President and Mrs. Grant, one or the other would be sure to say, “Now step back here and talk to Mr. Dent”—who always kept me sitting by him on his sofa, talking of my father and telling of the great contests they had gone through together; and when his memory failed calling me only “Mrs. Benton,” but always lighting up with pleased remembrances.

There, too, came officers of the army. My father

was their comprehending friend. Himself an old officer, and for twenty years Chairman of the Senate Military Committee, he was their sure and intelligent friend. With both knowledge and good will, such a position can be made of the utmost advantage to the service, as well as of personal advantage to officers. The certainty of sympathy and proper official aid never failed those who came to him. He was practically the Secretary of War in all those years, for he was a fixture while a Secretary is only a political accident, and in the War and Navy Departments usually quite ignorant of the personal as well as of the special requirements of service. Through such ignorance much injustice can be done, but in all my long knowledge of Washington, I have known of but one Secretary who found actual pleasure in giving pain to officers and in thwarting all personal feelings, even family feelings.

The French neighbors enjoyed coming for their chat, and invariably brought some fine fruit or flower for Madame, who fully appreciated both the kindly feeling and the fine skilful cultivation.

There too came many priests who were soldiers in their missionary work, and had as stirring adventures to relate as the trappers and hunters who knew they were always welcome to my father.

And often, gliding past into my mother’s rooms, would come the good Sister Elizabeth on active duty for her hospital—going away with a basket of useful things and many a solid piece of money from those on the gallery, with a “*permettez, ma sœur*” and a warm “*Bon jour, ma sœur*” from every one.

Two friends of my father’s were specially interesting to me. One a Spanish officer *and gentleman*, in the fullest meaning, who had served under Wellington in Spain; the other who was already a captain in the French army when Waterloo broke it up. Col. Garnier was much the elder. He had accepted his exile and its resulting poverty and sufferings with silent dignity. My father had a good knowledge of Spanish, but he always tried to add improvement to all his knowledge, and Col. Garnier and himself had a Spanish talking-lesson daily. He taught us our Spanish also. My father thought we ought to know the language of our near neighbor, Mexico, with whom closer relations must come. I was a great favorite with Col. Garnier. Some fancied resemblance to a little sister, won for me his kindest voice and the name of “Rosita.” Usually he took the early coffee with my father, and if Judge Lawless (once Captain Lawless) joined them as he often did, then their talk was sure to fall on the Peninsular war. A sign would send me in for the maps and the box of pins—beeswax heads for the Spanish troops, red wax for the English, and for the French, black.

Never was that discussion ended. Not only day after day, but summer after summer, did those three

move those pins that put the troops in differing positions, and proved "what might have been;" but never did either of the three convince the other. For hours they would be at it; generally the heat of discussion would be stopped by my mother's sending out an iced watermelon or a great basket of fruit which was a signal they understood. *Her* feeling was English — without discussion. My father's mother used to say, "Your mother is English, and she has the English genius for home comfort."

This grandmother was one of our returning pleasures in going back to Saint Louis where she had lived chiefly after my father's going there. She was more English than my mother in nearness to the mother-country, but she had a singularly large unprejudiced view of things, and had outlived every personal interest except in my father and a few of her grandchildren. Both her father and husband were English — both scholarly men and misfits in a new country. My Grandfather Benton's library in Greek, Latin, French, Spanish and English, had been his joy while he lived and made the atmosphere in which my father grew up — guided by his mother and his father's close friend, a clergyman, like himself an Oxford man, who put my father at his Greek Testament when he was but eight; at which age my grandfather's death left him the eldest son in a family of seven children.

My father has told me of the awe and singular feeling of loss of youth that fell on him when, after his father's death and a long illness which came on his mother, he was taken in to see her.

She was about thirty; a very tall slender woman with blue eyes that never lost their steady clearness. And, as all the Hart family, she had splendid long, thick, waving, auburn-brown hair. In her six weeks' illness this had changed to a silvery white — which, with her white and thinned face, so alarmed my father that he ran into a grove near by when he came out, and "had to war with himself to accept that shadow as his mother." Nearly all her children died young; of rapid consumption, as their father had died; and the silent grief with which my grandmother bore her eighty-three years of life invested her with a dignity none intruded on. She had her wing in my father's house, and her own old servants who knew her ways. A fall on the ice and a badly-set leg crippled her and caused keen suffering from rheumatisms for the last years of her life, but her powerful clear inquiring mind made books a great solace.

Our Virginia grandmother, with her unbroken domestic life, her active health and child's heart for simple pleasures, was just the opposite to my Grandmother Benton. She could not tolerate our sewing, "it is not good for your chest," she would say; and "you should never waste your time, doing what an uneducated person can do better for you."

One of her few pleasures was to have her hair brushed. This remained thick and long; so long that the thick plait reached nearly to the knee. When coiled around her head it filled the crown of the "mob-cap," as the widow's cap of that day was called, leaving only space for the band of black crape back of the narrow crimped ruffles. It was a pleasure to her and a privilege to me to let down and brush and smooth out this beautiful hair, and to hear her talk. Her extensive reading made all countries familiar to her. She made on me, even as a young child, the effect of being *above* other people. And though she died when I was but thirteen I have kept the realization of a lofty and great soul. I know that my father and his nearest friends very often referred questions to her and deferred to her calm wisdom and unprejudiced perceptions.

In Washington all our lessons were had at home but my father did the important part of appointing studies and preparing us for our teachers, making broad and lucid what they might have left as "parrot-ing," as he expressed it. Here in Saint Louis we were let to go to school; chiefly for the practice in French among other children.

It makes me smile to look back at that word "school" which had not the first idea of studies, of punctuality, or discipline attached to it as I knew it. The going there each morning was as good as playing truant. *Never* could it happen that children of any position left the house alone, or even together. We were big girls of eight and ten and every one knew us, and the distance was only a short mile between houses and grounds of friends; but to go without a maid was never dreamed of. We should have greatly preferred our French nurse, Madeleine, but she was not sufficiently important for such duty. Our mother's maid, "aunt" Sara, was. She had been trained from her youth up for her post — as was the Southern custom — and understood "manners." Erect, silent, holding a hand of each, she drilled us in manners as we went along. When we passed the small house of M^{me} Desirée where she in *very* negligée loose gown patted her muslins on the sunny gallery, we had to stop if she spoke to us.

M^{me} Desirée was the clear-starcher and fine-muslin genius of Saint Louis; too fat now, but still a most handsome quadroon who had a gay word for every passer-by. M^{me} Saraah was a crony of hers, and when she would give us the good day and praise our neatness and good condition (as all due to M^{me} Saraah!) we had to wait and listen politely: "You can't hurry her, because she is a poor working woman and it would hurt her feelings" — aunt Sara had never heard the words, but her conviction was that "Time was made for slaves," and not for little young ladies.

Then the garden doors of many pleasant enclosures would be open and, the various Madame Au-

gustes or Madame Caddys* would be out in the fresh of the morning and the ladies themselves — also in most easy negligée — going about their grounds. If they saw us we would be called in and *cette bonne Sara* asked after Madame and praised for her *petites*. And with deliberation (time no object), some pretty fruit would be chosen for us and we would recommence our walk to stop again and again; for, “Madame Auguste is a lady and you can’t hurry her” — in fact, there was no hurry anywhere.

When we did reach the school we were consigned to Madame Savary who did not teach, but who looked after us; a small vivacious Swiss-French-woman with a mania for making preserves and doing fine sewing. Monsieur Savary was capable of far more than was required of him. I think he had put away his pride and resigned himself to what he could, not what he would, do. He was a spare tall man with flat black hair and gold spectacles and always wore a short-waisted very long and full-skirted frock coat of gray, with collar and cuffs of black velvet, a sort of uniform for teachers which you often see in old-fashioned French illustrations. He was quiet, gentle and forbearing, and had need to be so as there were about thirty girls, from six to sixteen — of course not a fraction of a boy in a French school — and not one with any intentions of study or habit of discipline; good-natured enough, but trying. They may have learned something. *We* were there only for easy handling of familiar French; and except some spelling, and reading aloud in *Telemachus*, I do not recall anything of lessons. But I won honors in whipping ruffles and hemming handkerchiefs for Madame Savary, and what was really important was when we, the younger ones, were permitted to help her make preserves. If a quantity of strawberries or currants were sent to her all hands turned in to prepare them. For the object my father had in view, it was more useful than reading from a book and vastly better for health than sitting still on a bench; for we adjourned, we young ones I mean, to the inevitable gallery, or the garden which was on the bluff overlooking the river. By one o’clock aunt Sara had come for us to go home and as this was our dinner hour we made no delays.

In French schools Thursday is the holiday. Saturday and Sunday, they think, make too much holiday together. But to us Americans the Sunday was not a holiday in their sense, where after mass all their children were taken around among their elder relations and it was a family fête-day.

We did not go on Saturdays to school. That day our mother had us get our Sunday-school lessons with her — telling us many interesting things

and making them, as all our home lessons were, a real pleasure and improvement. Our Sunday dresses were decided on and each thing reviewed and put in order that no delay might come. All our dolls and toys and weekday story-books were put away until Monday; and then we had as wild a play as big grounds and good health and early youth could give.

Sometimes, in a summer’s day you feel, before you see why, a chill in the air. Something has changed; and though the day looks the same its sweetness is gone. So, in the summer I was about eight, this bright careless Saint Louis life seemed to chill over. At first we were only told we were not to go to school. Then, we were to play only with each other in our own grounds and no more little friends visited us or we them. The friends who came to my father on the long gallery were as many as ever, but they and he himself no longer had any pleasant leisure, but were quick and busy in coming and going, and all looked grave. The tears were all the time on Madeleine’s face and constantly she was on her knees telling her beads and praying and sobbing. We saw many, many funerals passing. Our house was on a sloping hill, and we saw to all sides of the square. Then, soon, drays with several coffins piled on jolted fast along the rough street, or a wagon-load of empty coffins would cross another street. Madeleine would run in from the gallery hiding her eyes: “Ah, *Mon Dieu*, it is all funerals on every side — *C’est le cholera*.”

It was the cholera; among a people excitable and ignorant of its treatment, who gave up to it as a fatality if they could not fly from it.

In this condition of universal alarm, when nearly all who could, fled from the town, even clergymen deserting their churches, my father thought it right for him to stay and give the encouragement and example of his presence. With his courage and sense of duty this was easy, but it must have been hard to him to risk my mother and all of us children. The Catholic clergy were true to their post; and among the Protestant clergymen who remained was a young man who became loved and honored there, the Rev. Mr. Potts. He became very intimate with my parents during this cholera time, and later, married a neice of my father’s.

I was too young to know details, but I know how the Peninsular war was laid aside for good work from both officers among the sufferers. All were busy, and all needed, for a panic had set in and nothing is so cruel as fear. Our poor gentle Mr. Savary died — alone. Gay M’âme Desirée nursed others like a hero but was herself a victim. Our Madeleine became almost entirely blind — nervous paralysis of the eyelid from the terrified shrinking of the eye from the constant passing coffins. Otherwise the disease did not touch one of our family

*The younger sons were usually called *Cadet* as the descriptive addition to the Pierre or Auguste or what not: the Americans got this into “Cad-dy,” and “Mr. Caddy” and “Madame Caddy” hardened into use from repetition.

and spared our nearest friends. Our house was a "diet-kitchen;" good soups, preparations of rice, and well-filtered and purified water, it became the occupation of the house to keep ready.

All the water was brought in large barrels from the river and poured, bucket by bucket, into great jars of red earthenware, some of them five feet high. These jars had their own large cool room paved with glazed red brick and level with the street. The jars of drinking water and for cooking were clarified of the mud of the river by alum and blanched almonds, and then filtered. So much was

needed now that even we children were useful in this sort of work. In that cool dark room the melons used to be kept, but there were no melons or fruit now—we ate only rice and mutton and such simple things.

The sad summer ended as all things must end, bad or good. *Tout passe*. When all seemed safe, suddenly my mother was taken down with cholera, and the nurse who had become blinded by one shock recovered her sight from this other. It was a bad illness, but with that one brush of the dark angel's wing our home stood as before.

THE TEMPERANCE TEACHINGS OF SCIENCE.

IX.—THE NERVOUS SYSTEM AND NARCOTICS.

BY PROF. A. B. PALMER, M. D., LL.D.

IN the preceding chapters the effects of alcohol upon those organs of the body directly concerned in digestion, nutrition, respiration, circulation, secretion, and the purification of the blood, were discussed. These all are important organs and the functions they perform are indispensable. When these organs are diseased—when they are lowered in their vitality and degenerated in their structure, in the manner that alcohol tends to affect them, the whole system suffers, but this suffering is primarily and chiefly physical; the mind—the most important part of the man—the feelings, impulses, and purposes, mental and moral, the intelligence, the knowing and reasoning faculties, and the governing will are, by the impressions upon these organs, affected only secondarily and remotely.

We come now to consider the action of the narcotics on the *Brain and Nervous System*, and especially that of alcohol where its most characteristic effects are produced.

This Nervous System, of which the brain is the chief or crowning part, but which includes the spinal cord and the nerves, is regarded by all physiologists as the central and most important part of the organism.

It is the most important part for different reasons. It establishes connections and relations and maintains a harmony between the different parts of the body, and none of its actions are independent of the brain and nerves.

It would require a long time and much study for any one to learn what is well known by anatomists and physiologists respecting the nervous system, to say nothing of the theories and discoveries which still lack demonstration. The brain especially, but also the spinal cord, has many curious and delicate

parts which perform a great variety of functions. There are myriads of cells which originate actions and receive impressions, and as many minute tubes which convey impressions and forces to and from the cells to the different parts of the body. The details respecting the kinds of actions are too numerous to state; and it must answer our present purpose to say, that not only every organ of the body has a nervous supply, but every minute part of a living tissue, performing any action, having any power of motion or capability of feeling—every part constructing blood corpuscles or effecting secretions—is furnished with a little nerve fibre controlling its action; and any wrong state in the cells of the brain or the fibres of the nerves causes wrong actions, more or less marked, in the parts influenced by them.

But besides this, and what is of much more importance in relation to our subject, the brain is the organ of the *mind*. Everything we call mind, every feeling, emotion, disposition, impulse and desire; all ideas, knowledge, reason and thought, and all purpose, determination and will—the power to feel, the power to think, and the power to act—all that pertains to our character or conduct, shows itself, or is expressed, through and by the brain; and character and actions are influenced and determined by the conditions of the brain. Anything that acts upon the brain and the nerves—the appendages and servants of the brain—changing their conditions, changes the conditions and actions not only of the body but of its immaterial inhabitant, the mind.

Now, not only the most characteristic but by far the most marked action of alcohol is upon the nervous system—upon the brain, the spinal cord, and the nerves.

The brain has more attraction for alcohol than the other organs of the body. In case of death from direct alcoholic poisoning in men, as sometimes happens by accident, or in animals as produced by experiments, more of the poison is found in the brain and liver than in other parts, and there is a larger proportion in the brain than in the liver. But alcohol has not only a special aptitude to be in the brain, but to *act upon* its soft and delicate structures, and to change its important functions.

There is a class of agents, including alcohol, opium, belladonna, ether and chloroform, which are called narcotics. Their effects are peculiar, all agreeing with each other in many respects, but differing in some minor particulars. Their action is specially upon the nervous system, and upon those portions of it concerned in mental operations. They are generally described as first exciting and then depressing nervous action, and as particularly operating upon the intellectual part of the brain.

The excitement which these narcotics produce is usually very brief, and is, often at least, indirect, and may be produced by the resistance of the system to the intrusion of an unnatural agent. The cause of a fever, though a depressing poison, produces an excitement of the circulation, and often of the operations of the mind, but neither this or the narcotics increase muscular strength or any regulated or any useful form of activity; and the excitement produced by the narcotics is soon followed by the depression which is their most decided and characteristic effect. Many of their apparently exciting effects can be accounted for on the supposition that their entire action is depressing or paralyzant. Some nerves excite action in the organs which they supply, and others restrain action; and the performance of proper functions depends upon the balance of these exciting and restraining nervous influences. Those that restrain and thus regulate action are called *Inhibitory* nerves, and when those supplying an organ are weakened, paralyzed or destroyed, certain actions of that organ are increased, but these actions become irregular, and real permanent force is not produced. Some apparently stimulating effects are known to be caused by paralysis of the inhibitory nerves, and not by a stimulating effect upon the excitor nerves; and this is likely to be the case in more instances than have yet been demonstrated. But whatever and however apparently increased action is produced by narcotics, it is irregular and transient, and is accompanied by unfavorable activity, certainly when the narcotics are taken by persons in health, and such action is followed by the characteristic depression.

Among the most marked effects of opium is the production of sleep, of belladonna the production of delirium, of chloroform and ether the production of insensibility, but the two latter articles, when not carried to the extent of causing insensibility

temporarily produce the state called inebriation or drunkenness. The effect of alcohol is similar to these, but more lasting, and when carried to a sufficient extent it likewise produces insensibility. All these narcotics when given in sufficient doses cause death by paralyzing necessary life functions.

But these narcotics, even when not carried to the extent of entire insensibility, by their paralyzing effects on the brain and nerves relieve pain when present, opium most of all, and all modify the feelings so as often to produce agreeable sensations and emotions, and all disturb in one way or another the natural operations of the mind.

Another quality all the narcotics possess, but some more than others, and that is, when taken repeatedly they create a desire for the continuance of these repetitions, and tend strongly to the formation of a *habit*, which it is difficult, and in some cases apparently impossible, to resist.

It is not possible fully and scientifically to explain the force of the *narcotic habits*. They are allied to each other, and to a certain extent one may take the place of the other — at least the formation of one of these habits tends to the production of others. They are much more readily acquired by some than by others. The children of parents who have acquired such habits, from an inherited impulse are much more liable to form them; and the use of some of the narcotic articles has a stronger tendency to become tyrannously habitual than that of others.

The opium habit, though readily formed, is, perhaps, more difficult to break than any of the rest, but it will serve, in some respects, to illustrate them all. A dose of opium produces with many persons agreeable sensations, bodily and mental. It quiets restlessness, soothes irritation, and sometimes produces a temporary elevation of thought and a dreamy pleasure. This leads to a desire to again excite such agreeable feelings. But the after effects of the doses are unpleasant. Depression, uneasiness and often pains are felt. These are readily mitigated or removed by repeating the dose, and the agreeable feelings take their place. This state of things naturally leads to repetitions, until the indulgence becomes habitual, and larger and still larger quantities are required to relieve these secondary sufferings and to cause the agreeable sensations.

But besides and beyond this, there is a force in narcotic habits not fully understood. Repeated indulgence in any of these articles which make a strong impression on the nervous system, whether that impression at first be disgusting and distressing, as in the case of tobacco, or more immediately agreeable, as in the case of opium and alcoholic drinks, produces a fascination and an enthrallment that those alone who feel their force can appreciate. A changed condition is induced with unnatural wants and propensities, which call for

and insist upon gratification, however disastrous the results. But whether explained or not, these facts are too familiar to be questioned and too important to be ignored.

Alcohol is a powerful narcotic and has all the essential properties of the class; and though so small a quantity of any of them may be taken, or they may be so seldom indulged in, that their more disastrous consequences are resisted, yet there is

always danger in their indulgence and injury more or less is produced and in proportion to the extent of their use.

Though alcohol has many properties in common with the class to which it belongs — has a similarity of action on the nervous system with the others — yet it has qualities peculiar to itself, and its more particular actions on this system are next to be described.

THE MAKING OF PICTURES.

BY SARAH W. WHITMAN.

IX.

PHOTOGRAPHY.

IN regard to the making of pictures, we have already seen what may be found in, first, the realm of Fine Art, or original *creative* work done by the artist; and, secondly, in the realm of *imitative* work, where by skilful treatment the artist's achievement is, as one may say, translated or transcribed in a different medium. These two departments covered all possible means of obtaining pictures till there came in the great advance of science, by slow discoveries and gradual adaptations, the power of using the sun's ray to obtain a representation of natural objects. As we look upon the face of nature we see the indications which must always have stimulated thoughtful minds to wonder if in some way, such fleeting pictures might not be kept and held. The reflections of forms in water and on the surface of burnished metals; the shadows of objects on the ground and even in the clouds — with all this before their eyes we may be sure that men were wondering centuries ago if there were not some strange method by which these pictures could be made permanent; a lasting rather than a vanishing record of beauty in nature. And at last it came.

During the twelfth century the alchemists first noticed a change produced in a certain chemical compound when it was exposed to the light; further investigation followed; and toward the beginning of the nineteenth, a Swedish chemist named Scheele, gave great care to the investigation of the change, while after him, through the labor of many men of science, including Sir Humphrey Davy and other eminent students, experiments were tried and processes initiated, the result of which was the perfection in 1839 of the *daguerreotype*; so called from the name of the French chemist and artist Daguerre.

With the daguerreotype virtually came all other variations of the process; and chiefly conspicuous is the Photograph, by which means chemical action is induced on glass, to produce what is called the "negative;" and from which the picture is subsequently printed by solar action on sensitive paper.

It would be useless to attempt to describe here the methods of photography; as they are of a very exact and elaborate nature, and must be sought in practical hand-books; but we will look at the nature and value of photography, in adding to the resources of civilized life.

It is difficult to make a just estimate of anything which enters into so varied a number of interests; photography being availed of in all sorts of ways for the most practical purposes. That this should be the case will be readily understood when we remember that for the absolute reproduction of lines from a flat surface, no handicraft equals the photograph; while, beside, this perfect imitation is obtained almost instantly, and of any size that may be desired, to say nothing of the fact that the pictures thus made can be repeated almost indefinitely. We shall find, therefore, that photography is widely used in mechanical work where drawing by hand has always been practised — in making copies of plans and models, of tools and instruments. In short, wherever the only thing needed in the drawing is exact imitation it is almost always made nowadays by the sun's ray, rather than by the hand of the craftsman; involving thus an enormous saving of time and pains.

A notable example of this is in the use made of the photograph in wood-cuts. Before cutting, of course the design must be drawn with the greatest nicety upon the block, and this is now done by photography almost wholly; and done without the possibility of variation or mistake — thus saving the engravers long and tedious labor of a wholly mechanical nature.

For the reproduction of forms which are not flat, or on a flat surface, the photograph is of less avail for mechanical uses; as owing to the laws of perspective, it is extremely difficult to get a picture in which what is called the drawing is preserved correctly. In photographs of buildings for example, the lines will not maintain their right relation; and in those made from the human figure the limbs are seldom represented in true and pure proportion.

Such are some of the limitations in the power of reproduction in the photograph; and you will all, undoubtedly, recall examples of them. Yet on the other hand how great is our obligation to this science for the pictures it affords of so much that is beautiful in sculpture and architecture. Perhaps in no way is the charm of photography so much felt as in this direction; because owing to the tints of stone, we feel less the need of that element, color, which is always lacking in photographic pictures. Photographs of monumental remains, of Athens and of Rome, of the Sphinx and of the Temple of Thebes, taken with due regard to the adjustment of light and shade, have an intrinsic value; for they possess the accuracy, which, in pictures such as these, is a first consideration.

Very different elements are involved in taking photographs of landscape or of people. In the former so far as any large result is concerned, it is prevented by the inherent difficulties of air and space. In some instances, of course, very charming bits of scenery are rendered by means of the camera; studies of clouds, of water and of boats—all these furnish interesting subjects for such pictures, and when undertaken by students who understand the laws of artistic arrangement often achieve much success, though they must always lack that indefinable and exquisite quality which sets the seal of personal expression upon the true Work-of-Art.

There is a saying of Landseer's regarding photographs of the human countenance, which is frequently quoted, to the effect that it supplies "justice without mercy;" and on this basis one often hears it said that a "photograph *must* be like a person," together with much that is equally unintelligent. For let us recognize at once the want of truth in this theory. There is no "justice" in a process which represents the bare surface-aspect of any one; and it may be doubted if the clear, exact copy which the camera makes of the human face, has really as much *likeness* in it to the true person which lies behind the superficial area, as is possessed by even inferior portraits done by the hand of an artist who is faithfully endeavoring to express the inner as well as the outer man.

This leads one naturally to the consideration of recent investigations made by what is called the instantaneous process; and especially to the published report of Mr. Muybridge which is full of interest. The first lesson to be learned from the examples he has given (as for instance in the atti-

tudes assumed by a horse in the act of racing, or leaping) is, how very much goes on in the world of moving objects which cannot be discerned by the human eye. We think we see; but we do not begin to see all there is in the varied movements which go to make up any one completed action, unless it be done with extreme slowness. As I say, we all know this to be true, but we fail to remember it. So when Mr. Muybridge first showed us what a variety of motions were involved in the mere act of taking up a horse's foot from one spot, and putting it down in another, there were many voices which cried out that these discoveries would "revolutionize Art!" Now it is no more true that Art is revolutionized by the discoveries of the camera in regard to the complexities of movement, than by the discoveries of the microscope in regard to the variety of forms. These discoveries are all of great interest; they furnish lessons of deep value; artists will gain much from future knowledge in these directions—but unless the world takes to wearing lenses and microscopes, the human eye and what it sees, must be the gauge of the visible universe; and the appearance of things to our eyes, not to the eyes of a bird or a fly, will remain the standard of vision by which works of Art stand or fall. Let us understand first principles; and not mistake the facts of science for the truths of art, any more than we should mistake the symbols of language for the beauties of literature.

For us Americans, by far the greatest gift which photography has made us, lies in its bringing us faithful copies of all the great pictures of the world. From the little photographic print, a few inches square, all the way to the great "carbons," almost, or quite, the size of the originals, we have a series of reproductions in black-and-white, of all that has been done of merit, the earth over. For the artist the value of this cannot be measured; and for all who are interested may here be found the history of the rise and progress of Art. Periods, schools, individuals, may be studied in the collections of their works; and one may thus lay claim to some of those great delights which heretofore have only been obtainable through travel and research. One cannot forget that the glory of color is left out; but form and composition, those great elements in all Art work, are preserved in these photographic copies. Equipped with this means of culture young people all over our country can begin to understand what the message of Art has been to the world; can see, as one may say, the evolution of Art, and thus gain a clue to its meaning.

In my next chapter, I shall speak briefly of the processes used which have come forth out of photography; and you will see that chemistry has taught us by what means may be accomplished the work not only of the pen, but of the graver also, and lets us see how the wonderful hand of the sun both draws and engraves with matchless fidelity.

BOYS' HEROES.

BY EDWARD E. HALE.

IX.

ISRAEL PUTNAM.

YES," said Enos Tait, "there is a boy's hero. He is not a hero like some people on your list, whom no boy ever heard of."

"And what do you know of Israel Putnam?" said his father, who was not very enthusiastic about "Old Put." To tell the whole truth, the most profound students of American History are not apt to be enthusiastic when his name is mentioned.

"First," said Enos bravely, "he left his plough in the furrow. I like him for that." In truth I have always observed that leaving the plough in the furrow is a manœuvre boys do not dislike — when a truly good man suggests or compels it.

"There is a picture of it in the Town Library," said Enos, "and the White Horse is beyond which Old Put is going to ride to Lexington."

"Then there is the wolf!" cried Ethelbert.

"Yes, there's the wolf. And there is his ride down the stone steps. I used to think the steps were in Boston, between Cornhill and Brattle street."

"Then there is 'P. S. P. M. He is hanged,'" said his mother. "I always liked that. I read that at school before I knew what P. S. or P. M. meant."

"I think myself," said Mr. Tait, melting a little before their enthusiasm, "that that is the best thing you have named. What is very funny is, that one of the histories alters it to, 'He is executed.' 'Old Put' could no more have spelled 'executed' than he could have danced the Redowa."

"Did he spell badly?" asked Charlotte.

"He spelled horribly — could not spell at all."

"I am sure I like him for that," said poor Charlotte, whose spelling is her very weakest point. I always encourage her by telling her that in the next century people will spell as they choose [in the next century people will spell as they choose].

"We will have him for a girls' hero, as well as a boys' hero," said Charlotte, well pleased.

After this we took down from the shelves:

Miss Larned's *History of Windham County*, Dawson's *Gleanings from the Harvest Field of American History*, Humphreys's *Life of Putnam*, Tarbox's *Life of Putnam*, Fuller's *Veil Uplifted*, W. B. O. Peabody's *Life of Putnam*, Swett's *Battle of Bunker Hill*, Lossing's article on Putnam in *Harper's Magazine*.

Out of these, among us, we collected the narratives from which Colonel Humphreys made the Life,

from which the well-known anecdotes in the school-books have been taken.

The truth is that Putnam was by no means a great man. If ever anybody was unfit to be a Major General, it was he. But he was a thoroughly courageous man, and he had the good luck to have his story told by Humphreys at a time when the people of this country were wild for heroes and stories of heroes. No story suffered in Humphreys's hands — as the boys and girls will guess who live near Horse Neck, and who have seen the terrible picture of Putnam's ride in Mr. Lossing's book in which he bounds on horseback down the hill there.

I, who tell you this story, have gone into the Wolf's Den, and I needed no rope round my waist to pull me out. But whether I should have gone in were a wolf at the other end, I am not sure. More than this, when the wolf was there, it was winter, and the rocks were covered with ice, and were "exceedingly slippery." If I told the whole story as Colonel Humphreys tells it it would take up all this paper. But here is the critical passage:

Cautiously proceeding onward, he came to the ascent; which he slowly mounted on his hands and knees until he discovered the glaring eyeballs of the wolf, who was sitting at the extremity of the cavern. Startled at the sight of fire, she gnashed her teeth, and gave a sullen growl. As soon as he had made the necessary discovery, he kicked the rope as a signal for pulling him out. The people at the mouth of the den, who had listened with painful anxiety, hearing the growling of the wolf, and supposing their friend to lie in the most imminent danger, drew him forth with such celerity that his shirt was stripped over his head and his skin severely lacerated. After he had adjusted his clothes, and loaded his gun with nine buck-shot, holding a torch in one hand and the musket in the other, he descended the second time. When he drew nearer than before, the wolf, assuming a still more fierce and terrible appearance, howling, rolling her eyes, snapping her teeth, and dropping her head between her legs, was evidently in the attitude, and on the point of springing at him. At the critical instant he levelled and fired at her head. Stunned with the shock, and suffocated with the smoke, he immediately found himself drawn out of the cave. But having refreshed himself, and permitted the smoke to dissipate, he went down the third time. Once more he came within sight of the wolf, who appearing very passive, he applied the torch to her nose, and perceiving her dead, he took hold of her ears, and then kicking the rope (still tied round his legs), the people above with no small exultation dragged them both out together.

"You keep saying, 'Colonel Humphreys,' with a sort of sneer, papa," said Enos. "What is the matter with Colonel Humphreys?"

His father acknowledged the impropriety of his sneering, and said he would try to laugh. Colonel

Humphreys was first an aid of Putnam's, when he probably had to see to his spelling, and afterward was an aid to Washington. Humphreys had a certain literary turn, and is one of the early American authors, of the era after the Revolution. When Mr. Tait, Enos's father, spoke lightly of him, just what he meant was this: Humphreys had heard dear "Old Put" spin these yarns over and over again. I believe that after General Putnam had had a stroke of paralysis, and was living at home like a caged lion, Colonel Humphreys went and visited him. Then Doctor Albigeance Waldo kindly sent him anecdotes which "Old Put" had told him. From such materials Colonel Humphreys made up the *Life of Putnam* which he sent to the Society of Cincinnati of Connecticut, and which is the reservoir for the stories which have made him a boys' hero.

When this was duly explained to Mrs. Tait and to Charlotte, they said that it was in this way they preferred to have history written. It made it much more entertaining.

In 1755, when he was thirty-seven years old, Putnam took charge of a company of volunteers in the Connecticut contingent which joined the English army against the French. It was in the campaigns which followed, that the adventures took place in which he saved the magazine of Fort Edward, in which he and Durkee were so closely pursued and tumbled together into the same place of refuge, and in which he found fourteen bullet-holes through his blanket. Modern criticism has shown that the blanket must have been folded when it was struck; but the Tait children agreed that one bullet which had force enough to cut through an old-fashioned home-spun blanket fourteen times, was an uncomfortable neighbor.

The war in Canada ended, virtually, by the fall of Quebec, and in 1761 Putnam was again at home. But he volunteered again in the Connecticut contingent which joined the English force against Havana. The arrival of the reinforcements from New England saved the English expedition, and the capture of Havana soon followed. Had it not been returned to Spain by the treaty of the next year, Cuba would probably now belong to the United States or Great Britain.

And now he returned to his farmer's life for twelve years. He took part in the protests against the use of stamped paper, which, in fact, kept Connecticut free even from the presence of a sheet of it. He went once to Natchez, where land had been granted to the survivors of the Havana expedition, and he sent some laborers and tools there. Once and again he was in Boston, and met there Gage, Colonel Small and other officers with whom he had served in the French War. He also met Lord Percy. With these gentlemen he had friendly converse on the threatening state of affairs. Being once, in particular, asked, "whether he did not seriously believe that a well-appointed British

army of five thousand veterans could march through the whole continent of America?" he replied briskly, "No doubt, if they behaved civilly, and paid well for everything they wanted; but"—after a moment's pause added—"if they should attempt it in a hostile manner (though the American men were out of the question) the women, with their ladles and broomsticks, would knock them all on the head before they had got half way through."

Meanwhile, at home, the militia were under regular training for service, and such men as he were of course chosen commanders. The news of Lexington found him ploughing—as the picture shows which Enos Tait had seen—and without changing his clothes he set out for Boston.

He was at once appointed a Major General by his own colony. As such he probably gave commands to the Connecticut regiments at Bunker Hill—where he was present. He was not the commander-in-chief, for the expedition was sent out by General Ward, who had a Massachusetts commission, and had directed Colonel Prescott to fortify the hill, which he did. Putnam had meanwhile distinguished himself in a skirmish, in which an English vessel was burned at Hog Island; just beyond what is now East Boston. The news of this reached Philadelphia in time to quicken Congress in making him a Major General on the Continental establishment. If Congress were to fight battles, it would not do to have a general from Connecticut, who owed no allegiance to a general from Massachusetts. On the very day that Putnam was trying to fortify Bunker Hill, to cover the retreat of Prescott and his men who were on Breed's Hill, Congress made him a Major General of the United States. It was in the same series of appointments in which Washington was named Commander-in-Chief.

When the English left Boston, Putnam was sent to New York and assisted in the effort to defend that city. Just before the fatal battle of Long Island he was appointed to the command there. The failure of the American troops has been charged to his incompetency, but perhaps he had not fair time to make proper arrangements to repel the attack. After this he held the command, at one time of the posts above New York. It was when he was in this command that he made the Break-neck ride, and that he wrote the note, with "P. S. P. M. He is hanged," which so pleased Mrs. Tait for its brevity.

But, in December, 1779, the fine old fellow was struck with paralysis which disabled him, and he resigned his command in the army. From that time till he died he lived in Pomfret telling his old stories and fighting his old battles.

The critics may make as much fun as they choose about these stories. But they give us by far the best picture we have of the details of campaigning on the frontier in the "old French War."

ENTERTAINMENTS IN CHEMISTRY.

BY HARRY W. TYLER.

VI.

THE SOLUTION OF METALS.

WATER, while it is the commonest, is by no means the only solvent. In fact, there are many solvents; and various modes of solution. And it is fortunate that the soluble form of water is so limited that glass and iron, for example, are not dissolved like sugar and salt. Metals indeed we usually think of as insoluble, and most of them are so in water. Certain liquids however have the power of dissolving even metals.

As a test of their power we will put some copper filings, or a copper cent, in a cup, and add a few teaspoonfuls of nitric acid, previously mixed with twice its volume of water. Nitric acid should always be used with caution, as it produces painful yellow spots on the skin, and injures all clothing or metallic surfaces which it touches. Set the cup in a warm place, but not upon a stove, as that might crack it and spill the acid. As the mixture becomes warm, marked changes take place. A deep greenish-blue color spreads through the liquid. Little bubbles of gas rise rapidly to the surface and escape; but, unlike the gases which we have previously studied, this has, on reaching the air, a strong offensive odor and a deep red color. The cup should now be placed out of doors or in a free draught of air, that these disagreeable fumes may be carried away. When the action has nearly ceased, pour off the clear blue liquid into another cup, and you will find the copper much diminished if not entirely gone.

We will now compare this experiment in solution with another which we have studied. You will remember that by evaporating the sugar solution, all the sugar was recovered. But if we should evaporate this blue solution—it is not easily accomplished—there would remain, not copper, but a mass of blue crystals. In another way, however, we can easily prove that the lost copper is really present. Pour a portion of the blue solution into a third cup, and suspend in it a clear piece of iron or zinc. Tiny bubbles rise from its surface, and we shall soon find it coated with a thin film of metallic copper. If we leave the iron in the solution long enough, we may finally recover all our copper, while the blue color of the liquid gradually changes to dark green.

We may infer from these observations that the copper has not merely been dissolved mechanically like the sugar, but that it has also been sub-

jected to chemical change. In fact, we have made a *chemical* solution, while that of the sugar was merely a *physical* solution. In other words, the latter contained sugar all the time, the particles being merely separated; while in the former, each smallest particle, or atom, of the copper has been seized by a certain number of atoms from the acid, and has combined with them to form one whole particle of the new blue substance, which is neither copper nor nitric acid, but is called, on account of its origin, copper nitrate.

A third case of solution we have already studied, that of marble or soda in muriatic acid for the production of carbonic acid. In that instance, both the soda and the acid were decomposed, and there was an entire re-arrangement of their atoms, the final result being the conversion of the whole into three new substances—carbonic acid, as was found, together with water and common salt, as may be proved by evaporating the mixture until the water is gone and only the salt remains.

In each case, however, physical solution is necessary for the chemical. And as fast as the particles of copper nitrate, or salt, are formed, they are separated from each other and held in physical solution by the water present.

The reason why the strip of iron suspended in the copper solution becomes coated with copper, is not easily understood. But in some mysterious way, nitric acid seems to have a preference for iron over copper, so that, even when already combined with the latter, it can forsake it for the iron. We know that in this process the iron is dissolved, because of the characteristic dark-green color which it imparts to the previously blue solution.

We will now experiment with the remainder of the blue solution. First, add water until the color is much paler; then add, very gradually, some ammonia water. At once the liquid assumes a splendid dark-blue color, which disappears, on shaking, and leaves white floating flakes. If now we add more ammonia, these flakes are re-dissolved and soon the color becomes permanent. Thus we have a test which will enable us to detect a very little copper nitrate dissolved in a great amount of water. Ammonia is a remarkable substance, possessing the power of uniting both with copper, and with nitric acid. It first combines with the acid; this gives no color. But as more ammonia is added, it splits the particles of copper nitrate, combining with each part, the beautiful color being due to its union with copper.

Next, we will dissolve a silver dime or half-dime

in a little of the nitric acid, just as we dissolve the copper. Again we obtain a blue solution, though much paler than before, and therefore may suspect the presence of copper. A strip of iron suspended in the solution, or the addition of a few drops of strong ammonia, confirms our suspicion—the iron contains copper as well as silver. Now remove the strip of iron, and substitute a piece of copper, and you will find that just as the acid prefers iron to copper, so also it gives up its silver for the copper. Hence the copper is dissolved, and the silver sepa-

rated nearly pure, though in a dark and spongy form. On this principle depend indirectly the processes of electro-plating and electrotyping.

Nitric acid dissolves not only copper and silver, but nearly all metals, and this power is characteristic of many other acids, although no other possesses it in so high a degree. Fruit juices contain various acids, hence if cooked or canned in metallic vessels there is danger that particles of the latter may be dissolved and form poisonous compounds. Glass and porcelain are usually preferable.

SEARCH-QUESTIONS IN AMERICAN LITERATURE.

BY OSCAR FAY ADAMS.

IX.

BIRTHPLACES OF AUTHORS.

161. Name three poets born in S. Carolina.
162. Name three writers of note born in Georgia.
163. What two noted scientific writers were natives of Switzerland?
164. Mention three poets of Ohio birth.
165. What noted naturalist was a Louisianan?
166. What young novelist is of Norwegian birth?
167. Mention a poet born in Kentucky.
168. What noted novelist was born in Burlington, N. J.
169. Mention the names of ten or more poets born in Massachusetts.
170. What popular poet was born in Michigan?
171. Name six historians born in Massachusetts.
172. Name five poets born in Pennsylvania.
173. Name four noted writers born in New Hampshire.
174. Name two poets born in Indiana.
175. What famous poet was a native of Maine?
176. Name five authors born in Virginia.
177. Name five authors born in Rhode Island.
178. Name two authors born in Delaware.
179. What recent popular novelist of American parentage was born in Italy?
180. Mention the names of four historians born in the State of New York.

ANSWERS TO APRIL SEARCH-QUESTIONS.

121. James Russell Lowell married Maria White, 1821. John James Piatt married Sallie Morgan Bryan. Richard Henry Stoddard married

Elizabeth D. Barstow. James Thomas Fields married Annie Adams.

122. Thomas Buchanan Read, Washington Allston and Christopher Pearce Cranch.

123. W. W. Story and Miss Anne Whitney.

124. Arthur Cleveland Coxe, George Washington Doane. William Croswell Doane, son to G. W. Doane.

125. Benjamin Thompson (Count Rumford). He was for some years a resident of Rumford [now Concord], N. H.

126. Henry Ward Beecher, William Mumford Baker, Edward Everett Hale, Edward Eggleston, Sylvester Judd and others.

127. Edgar Allan Poe.

128. George Bancroft, John Lothrop Motley, James Russell Lowell.

129. Margaret Fuller, Marchioness d'Ossoli.

130. Bayard Taylor.

131. Richard Henry Dana.

132. Alice Cary, Phoebe Cary, Catherine Beecher, Henry D. Thoreau, Fitz Greene Halleck, Washington Irving, and others.

133. William Cullen Bryant who at that age published "The Embargo" and "The Spanish Revolution."

134. Jared Sparks (Harvard); Mark Hopkins (Williams); Francis Wayland (Brown); James McCosh (Princeton); Theodore Woolsey (Yale); Andrew D. White (Cornell), and many others.

135. James T. Fields and Henry C. Lee.

136. Miss Eliza Leslie, sister of the artist, Charles Leslie.

137. Charles Fenno Hoffman.

138. Lyman Beecher.

139. Cotton Mather.

140. J. R. Lowell, W. D. Howells and T. B. Aldrich.

C. Y. F. R. U.

REV. J. H. VINCENT, D. D., AND REV. J. L. HURLBUT, D. D., SUPERINTENDENTS.
MISS K. F. KIMBALL, PLAINFIELD, N. J., SECRETARY.

[This department, while not less interesting to the general reader, is especially set apart for the CHAUTAUQUA YOUNG FOLKS' READING UNION, the young people's branch of the Chautauqua movement for popular home education. It supplies a course of reading for young people which is intended to give them the most valuable knowledge in the most interesting manner. The Required Readings are issued simultaneously in WIDE AWAKE and the CHAUTAUQUA YOUNG FOLKS' JOURNAL; a few added books form the Supplementary Readings. The Union is under the direction of REV. J. H. VINCENT, D. D., and REV. J. L. HURLBUT, D. D., as Superintendents, in connection with the Editors of the magazines mentioned above. Any person, young or old, may become a member of the Union by sending his name and *ten cents* in postage stamps to the Secretary, MISS KATE F. KIMBALL, Plainfield, N. J., to whom inquiries for further information may be addressed.]

A LUMP of iron ore is of very little value, however big, so long as it remains only in the rough, native mass. It is nothing but a stone, with some possibilities in it, and it brings a very small price at the mine. When it has been broken up, and fused, and the iron has been brought out of it, and lies in a mass as "pig iron" it is worth five times its previous cost. A pound of pig iron, after passing through another process, and becoming an iron bar, acquires a new value; and when wrought into bolts, or nuts, or nails is worth more still. Harden it into steel and make it into knife-blades, and again its value is doubled. Temper and twist it out into watchsprings, and a single pound of it may be worth a thousand dollars. Yet in the rough ore at the mine, you could buy that pound of iron for a cent. Just so brains are worth very little to their possessor and the world until they have been developed and trained and cultivated. The brains of the hod-carrier, the bricklayer, the architect, and the artist, may all be at work upon the same building. But each has a different value, because each is at a different stage of training. Patrick carries a shovel, and earns a dollar a day; Lord Tennyson scratches with a pen and earns a thousand dollars for writing a few lines. If it pays to dig out and refine metal, it pays far more to develop mind. Now, that is just what we young folks of the Reading Union are trying to do. Let us never be discouraged in our endeavors, for the reward will repay for all the cost.

FOR meetings of the Local Union, and for private study of readers, we suggest the following subjects in connection with the article on Prince Henry Frederick, in this number. 1. A Review of the Reign of James the First, its principal events and great men; 2. The character of Prince Henry; its traits as shown in his life; 3. The Story of the Gunpowder Plot; 4. The Settlement of Virginia; 5. The Life of Sir Walter Raleigh; 6. Kenilworth Castle; 7. The Story of Amy Robsart.

WE name a number of topics in the last two chapters of Greek History, from which selections may be made for articles to be read at meetings. It would not be wise to take all these subjects at one meeting. The student should search in all the histories accessible and find all the facts concerning the assigned topic: 1. The Life of Mohammed; 2. The Empire of the Saracens; 3. Robert Guiscard and the Northmen; 4. The City of Venice, and how it was founded; 5. The

Blind Emperor of the Greeks; 6. The Story of the Crusades; 7. The Life of Skanderbeg; 8. The Fall of Constantinople; 9. Solyman the Magnificent; 10. Greece under the Turks; 11. How Modern Greece became Independent; 12. Marco Bozzaris (with a reading of the poem about him); 13. Lord Byron and the Greeks; 14. Reading "The Isles of Greece," by Lord Byron.

Now that Greek History is completed, we will suggest a few plans for reviewing it in meetings of the Circle.

1. The Twelve Battles of Greek History. Let each member bring a written statement about the twelve battles which he considers the most important in Grecian history, giving concerning each battle 1. Its name; 2. Date; 3. The contending peoples, naming the victorious side first; 4. The two commanders, naming the victor first.

2. The Twelve Great Men of Greek History. Bring in writing the list, in chronological order, of the twelve persons whom each considers the greatest in the history of Greece, from its earliest settlement to the Roman conquest. State concerning each 1. His name; 2. His race, *i. e.* the province or people to which he belonged; 3. Date of birth; 4. Date of death; 5. For what famous, *i. e.* as warrior, statesmen, poet, etc.

3. The Twelve Great Events. Let each member present a written statement of the twelve events, in their order of occurrence, which he regards as the most important in the history.

A conductor of each exercise may call from the class the different facts of the review, and place them upon the blackboard, aiming always to tell as little and obtain as much as possible from the members.

A MEMBER of the Union writes: "Last night I tried the experiments in the first paper in 'Experiments in Chemistry,' the one that tells about carbonic acid gas. They were all very successful. I had two-quart jars, and when one was full of gas, I would put the little bottle in the other jar, so that while I was using one jar of gas, there was another making. I used soda and sulphuric acid to produce it. It only took a quarter of an ounce of acid and two teaspoonfuls of soda to make four quarts. I put a half-teaspoonful of soda in the bottle, and a trifle of acid, and by the time I had a match ready to lower into the jar, it was full of the gas. I did not believe it possible, but there was no getting over the fact."

Answers to Search-Questions should be addressed to Editors of WIDE AWAKE, 32 Franklin Street, Boston, Mass., with the words, "Search-Questions," in corner of envelope.

For titles of books to be given as prizes see the January number.

In reply to many inquiries: *We will receive answers to Search-Questions up to the date of the appearance of the printed answers, and will publish the names of senders, and allow prizes for correct complete lists.*

Complete lists of correct answers to the April Search-Questions have been received as follows:

Ethel A. Rockwood, L. M. Alexander, Bessie W. Olney, Charlotte D. Iles.

Partial lists, and lists not wholly correct, have been received from the following:

Harry Grant, Katherine L. Ward.

In addition to those already credited, correct lists of answers to the Search-Questions in March Readings have been received from Star C. Y. F. R. U. of Providence, R. I. (Nellie F. Alexander, Sec.), Ethel A. Rockwood, Charlotte D. Iles, "You and I Club" of C. Y. F. R. U. of Providence, R. I. (Bessie W. Olney, Sec.), Hurlbut C. Y. F. R. U. of Framingham, Mass. (F. B. Daniels, Sec.), Ethel May Adams, M. Adelaide Love, William C. Thompson, S. Eddie Whittaker, Mabel T. Rawson, D. A. Hill, M. E. Bidwell, Frank B. Frye, Bertha Hampstead, Mary H. Settle.

Additional partial list of answers to the March Search-Questions have been received as follows:

Frank H. Dixon, Katie E. Bushnell, May Louise Scranton, Katherine Worthington Fowler, C. Y. F. R. U. of Berlin, Mass. (Clara L. Shattuck, Sec.), C. Y. F. R. U. of Bridgewater, Mass. (Julia M. Leonards, Sec.), May F. Camp, H. Willis Emerson, Edith Myers, Lena Mathews, Mabel McMillen, Ida Heysel, Mattie Bullis, Georgia Thomson, Maud Hastings, Blanche Hastings, Charles F. Garfield, Winona Parker, Frances Sterrett, Bertha Norcross, Manchester, Iowa (no name), Howard S. Hilson, Nellie Colfax Smith, George Bryant, Lila S. Jewett, Harriett W. Bray, C. Y. F. R. U. of Albion, Mich. (Mrs. D. Fall, Sec.), C. Y. F. R. U. of Moore's Hill, Ind. (Charlie Schabel, Sec.), G. E. Bushnell, Ernest Wheeler, Maud and Ethel Saunders, High School of Wareham, Mass. (Alice Guernsey, Sec.), Gertrude Pardee, Willie H. Davis, Mary L. Clark, Florence Ketrang, Harry Dow, C. Y. F. R. U. of Marshfield, Mass. (Henry J. Howland, Sec.), Alice Underwood, Alburn E. Skinner, San Antonio, Texas (no name), Alice Woodward, Jessie E. Lane, Allie T. Sprague, Emily C. Hall, Sunshine Circle of Dorchester, Mass. (Anna W. Smith, Sec.), Walter Eddy, Effie M. Thorndike, Luther Hatch, Lura M. Batchelder, Nellie Ward, Alice May Morgan, K. L. Ward, J. P. Deane, Lulu Barnes, C. Fahs.

A teacher writes: "You may be interested to know of the earnestness with which the pupils of the High School in this place are trying to answer the Search-Questions. The possibility of securing an addition to our small library is a powerful help, of course, though the Questions form a part of our regular Friday work, and we consider them very valuable. Could you know how hard we have worked because of the limited sources of information at our command, you

would sympathize, I am sure, in our disappointment at finding no clue to the last question. We are still looking, however."

We frequently receive letters from our girls and boys saying they would like to form C. Y. F. R. U. clubs, but do not know exactly how to proceed. In reply we would say that *circulars of suggestions are mailed by the Publishers of WIDE AWAKE and the JOURNAL to all applicants.* Meantime we give extracts from one or two who have established C. Y. F. R. U. circles. M. V. W. writes:

"I live on the southern shore of Lake Erie, about twenty miles from the place where Commodore Perry gained his great victory, September, 1813; and several of the British and American officers are buried at Put-in Bay, a small island. I am a member of the C. Y. F. R. U. A circle has just been started here, which is to be called 'The Pansies.' The members are all girls, from twelve to sixteen years of age, and number fifteen. At our first meeting this month one of the girls is to read a piece of poetry about our name of her own composing. Another girl, 'What we are going to do,' and I am to write, 'How we happened to start it.'"

H. A. K. writes: "We have very interesting meetings here. We hold a meeting once a week and our officers are elected every three months. When I first tried to form a club I only induced two to read the required readings; but I kept on and succeeded in forming a club at last. The newly elected officers take their places at the first meeting in April. I think the JOURNAL is the most interesting monthly I have ever read."

One of the C. Y. F. R. U. clubs in Lawrence, Kansas, recently gave a fine temperance entertainment, consisting of temperance declamations, readings, songs, and original essays based upon Professor Palmer's "Temperance Teachings of Science" in the C. Y. F. R. U. Readings. The influence of hearty work like this on the part of young people is incalculable upon the community at large.

Nearly all C. Y. F. R. U. circles have found it advantageous to place themselves under the leadership of some older friend of wide reading and trained observation. In every town and neighborhood there are genial and educated men and women who will gladly counsel and entertain and work with C. Y. F. R. U. clubs.

In the Prize Competition, Meritorious Handiwork, three prizes have been awarded:

First Prize, \$10.00, to Jamie E. Craig, Manitowoc, Wisconsin; *How to make a pair of Bobs.*

Second Prize \$5.00, to George V. Taylor, Wyalusing, Pa.; *How to make a Cabbage-worm Picker.*

Third Prize, \$3.00, to H. A. King, Austin, Illinois; *How to make a pair of Snow-shoes.*

The descriptions and diagrams of these ingenious and useful prize articles, invented and made by boys fourteen and fifteen years of age, will appear in the October and November numbers of WIDE AWAKE and JOURNAL.

THE WIDE AWAKE POST-OFFICE.

LEADVILLE, Col.

DEAR WIDE AWAKE:

I was very much interested in the story in the April WIDE AWAKE entitled "The Rich Man of the Mountains." As the gulch referred to is near Leadville, I felt a greater interest in the story than ever. I have never been there, but would like to go very much, now I know there is a romance about it. There are several gulches around Leadville, and, like "Dead Man's Gulch," they most all of them have a history. Some of them are very pretty in the summer time, especially two called Empire and Georgia Gulches. Georgia Gulch is particularly beautiful in the summer time. Strawberries grow in abundance there, and the tiniest humming-birds are continually flying about you. Then there is a gulch about six miles from Leadville, where wild raspberries grow thickly. About two years ago I spent two nights on the side of a mountain near it and had a splendid time. After dark we built a huge bon-fire and sat around it, singing, until bed-time.

Leadville itself is in a gulch, named "California," but nothing grows but a few wild flowers and some sage brush. Indeed, that is about all that grows anywhere within two miles of the city.

Besides the gulches I have mentioned there are innumerable small ones, all through the mountains; and some of them, with their small waterfalls and cataracts, are regular miniature Niagaras.

L. H. B.

DEAR WIDE AWAKE:

Villa Hodsdon wished to know where she could see Bastien-Lepage's painting of Joan of Arc, when she came to Boston. She can see it at the Museum of Fine Arts, near Trinity Church, on the corner of St. James Avenue and Dartmouth street. A Beacon and Dartmouth street horse car will take her there.

A BOSTON GIRL.

MIDDLEBURY, Vt.

DEAR WIDE AWAKE:

Your name is very dear to me, for I have taken you three years, and enjoy your bright wide awake sayings very much. I have had my choice of you or any of the other magazines several times by a dear aunt who always gives me some book for a Christmas present, and though I am very fond of some of the others, I still cling to my old favorite. Of your stories, "Honor Bright," and "Their Club and Ours" hold the first place in my esteem. I was much more interested in "Their Club and Ours," because it was written by some one about my age. I am very fond of scribbling stories myself, and once belonged to a club in which we gave a prize each meeting to the one who wrote the best story. But alas! it only lasted twice; but I took the prize once. It was a very pretty little vase.

I am very much interested in art, and should like to cor-

respond with Miss Villa Hodsdon, who must be a very bright "Wide Awake" girl. I think the idea of making the basket of products of the East, West, North and South a very pretty one.

MAUD J. WILCOX.

DETROIT, Mich.

DEAR ELDER GIRLS OF WIDE AWAKE:

In the story of "A Brave Girl" which we all enjoyed in our magazine last year, it has seemed to me that no part is more natural than Loto's resolve to be an authoress, and I wondered as I read it, how many of us had had a like experience; for is it not true that nowadays literature is the one thing which most of us think we understand, and writing the one pursuit which we believe we could follow with ease if we needed to? A girl who has just finished her education generally wants to earn some money, either for her own personal gratification, or in order that she may help some one else. She has no special talent for any one thing, and although she can do several things very well, she does not see how she can make her education a means of filling her purse, *unless she can write*; and she is sure she can do that — any one can write who has anything to say — and she has in her mind a lovely plot for a novel — did you ever know a bright girl who had not a plot for a novel in her mind? So, like Loto, she locks herself in her room, and writes, and writes, and writes until the great work is finished. Then again like Loto, she sends it to the largest publishing house in the country, and when in the course of time it is returned to her, she is surprised and indignant.

Now, girls, suppose that instead of writing, she should resolve to paint a great picture. She probably has taken some lessons, and knows as much about painting as she does about writing, so she devotes all her time to this pursuit, and paints away until it is finished — but then what does she do with it? Does she send it to some collection of pictures by famous artists, and expect to have it hung in a conspicuous place, and hailed with acclamations of delight? Can you imagine any of us girls being so unreasonable? Yet when we come to think of it, why is one aspiration any more foolish than the other? Why should we expect to find it easier to write a great book than to paint a great picture? There is no royal road to success in writing any more than in anything else. George Eliot says that genius is only a great talent for perseverance; and in no pursuit does this seem more necessary than in literature. But I suspect that in these days of such superior educational advantages there are so many people who can write pretty well, that to *succeed*, some exceptional natural gift or facility is necessary. Loto *persevered*, you know. The time has gone by when a woman who can write at all is a phenomenon. If Miss Burney's novels had just made their appearance, would any one of us sit up all night to read them? And would their author spring at once into popularity? Girls, I tell you there are scores and scores of women who can write; and the out-

look is not encouraging to us literary aspirants; yet in this pursuit, as in every other, the old saying is very likely true: "There is always room up higher." But I think that for those of us who don't mean to abandon our ambition as Loto did, there is no light task ahead. To begin with, our youth is a great obstacle. They say that publishers look askance at any one under thirty, and if we study the subject, most of us will be surprised to see how many great writers did not publish anything until they had arrived at an age that would seem to us terribly old. Suppose, however, that some one of us has had an exceptional experience so that while she is still young in years she has something to say that the world would enjoy hearing — the next thing to consider is the way of saying it, and that is where her youthful pen with its want of practice will be against her. Her school study of rhetoric is good for nothing; the style which seems the easiest is the very one that is hardest to write, I have heard it said; and she will be surprised to see how hard it is to express herself even clearly, to say nothing of grace and force.

But for those of us who really want to devote ourselves to literature, feeling that inward confidence which is said to be of itself a prophecy of success, I say let nothing discourage us. Let such give themselves to it heart and soul; making up their minds to work hard for five years before they have anything published; being careful to read only the best books, and above all things never allowing themselves to write unless they have something to say, even then the world will be the judge of whether it is worth listening to. Of course this apprenticeship and this "giving of time" puts "writing" out of the question for a girl who must "earn her living." I learn that we must expect little money at the outset, but that we must be grateful I am told that our untrained talent can win chances and places in which to try its young wings and make our names familiar to the public eye. Editors say that if the public likes our work, we shall be invited to write more. I suppose we will most of us, "fall out by the way," don't you, girls?

F. M. W.

QUINCY, Ill.

DEAR WIDE AWAKE:

I think it is about time some one in our family was writing to you as we have taken you so long and all like you so well. I think "A Double Masquerade" was a very interesting story, but I have always wished that "The Silver City" or "Cacique John" had been more satisfactorily finished. I wish the author would write a serial and not leave him standing there so lonely and forlorn, but carry the story on still further. I thought some of the girl readers of the magazine might like to hear about a Cooking Club to which I belong. Six of us belong and we meet every two weeks at one another's houses, and each one brings some dish that she has cooked, the one at whose house the club meets furnishing tea, cocoa, coffee or chocolate made by herself. I know a very nice game of Proverbs; each one is furnished with a slip of paper on which he writes some proverb; these slips are then shuffled, and each one draws one of the slips

and tries to illustrate the proverb written on it; the illustrations are then distributed and the proverb which is illustrated is then guessed from the drawings. I went to a company where we played it and I found it very entertaining.

BESSIE M. NEWCOMB.

ANDERSON, Ind.

DEAR WIDE AWAKE:

This is the second year I have taken you or rather bought you at the news-stand every month. I also take *Golden Days* and trade them off to one of my friends for *St. Nicholas*. I liked all the continued pieces last year, but I think that the piece called "A Double Masquerade" was the best. I think "Down the Ravine" and "In Leisler's Times" are two excellent pieces. Maud Burton asked if there were any cents coined in 1815. I read in *Golden Days* that the first United States cent bears the date of 1793, and that cents had been coined in every year since then, with the sole exception of the year 1815. I am getting a collection of old cents and have some very old ones and some half-cents.

I have some pet rabbits, black, white, black-and-white, gray, pure maltese and maltese-and-white. I think the maltese-colored rabbits are the prettiest, though sometimes I think the others are just as pretty. I had a pair of tame pigeons which would fly to me and light on my hands and shoulders whenever I called them; but I sold them for a good price because I was afraid they would be stolen or shot. I had some that were treated that way once. I also had three tame mice but I had just had them one day when some little children came with their mother to visit us and let the mice out while I was at school. I was told afterwards by boys who had had white mice that they were a nuisance and that I was better off without them. I have many other pets such as chickens, cats, etc. I like pets and don't know what I would do without them. I will be fourteen years old in July. I should like to correspond with any one who likes to read or is interested in pets of any kind.

EDGAR D. MOHAN.

84 LAFAYETTE AVENUE, DETROIT, Mich.

DEAR WIDE AWAKE:

I think perhaps some of the WIDE AWAKE girls would like to know how to make candy without cooking. Take the white of one egg, beat it stiff, add all the sugar it will dissolve (powdered will do, though 3 x or confectioner's is the best), and season with vanilla. Butter the hands and roll in lumps as large as marbles. Then put half an English walnut on each side, and put in a cool place for a few minutes. Date and fig candy is made by simply dividing the fruit and filling with this cream. For chocolate creams, take part of a cake of baker's cooking chocolate (without sweetening), place in a stew-pan on top of a kettle of boiling water until it is well dissolved. Drop lumps of this cream in and turn carefully, then take out and drop on a piece of smooth paper (buttered). Put in a cool place.

I am fifteen years old and would like very much to correspond with Elizabeth Tapley and Helen Harvey. If they will write to me I shall be delighted.

MATTIE JENKS.

WIDE AWAKE ADVERTISERS.

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Ayer, Dr. J. C. & Co.	19	Epps & Co., Jas.	Cover	Morse Bros.	1
Austin, F. W.	23	Evans, W. C.	1	Osgoodby, W. W.	1
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A REVOLUTION IN SCHOOL READING.

That a radical change is taking place in respect to the use of *reading books*, is witnessed not only by the utterances on the subject of the most advanced educators, but also by the action of teachers of acknowledged success in their calling, who are *adopting new methods*. The old-fashioned class reading-books, whose matter, conned over and over, carried few or no lessons of value, and awakened little interest on the part of the pupil, are being rapidly superseded by periodical publications, whose matter is fresh, attractive, full of valuable and interesting information, and, coming from the pens of the ablest living authors, presented in the very best literary style.

Among publications especially calculated to meet the new requirements are

LOTHROP'S POPULAR ILLUSTRATED MAGAZINES.

Wide Awake, The Pansy, Chautauqua Young Folks' Journal, Our Little Men and Women, Babyland.

Convincing testimony as to the intrinsic value of these periodicals for such use is found in the fact that prior to any efforts of the publishers to introduce them for school use, they were *voluntarily adopted in many of the best schools* in thirty-five States and Territories. These facts justify the claims that for school reading, no periodical literature is comparable to that offered by

D. LOTHROP & CO., PUBLISHERS, Franklin and Hawley Streets, Boston.

ANNA MARIA'S HOUSEKEEPING. By Mrs. S. D. Power. Boston: D. Lothrop & Co. Price \$1.00. If we were asked to recommend any one single book to a young housekeeper which should serve as a domestic guide, counsellor and friend, we should unhesitatingly name *Anna Maria's Housekeeping*. So far as our knowledge extends, there is no other book which so exactly and thoroughly fulfils the needs implied in those titles. It is no mere collection of receipts, but a complete and common-sense treatise on the whole science of housekeeping, tersely and clearly written, with a flavor of experience about it that makes one accept it as authoritative. It is a staff upon which the young housekeeper may confidently lean, and by the aid of which she may overcome obstacles which without it would seem insurmountable. Mrs. Power does not believe in a house keeping itself. It requires continual care and oversight, and a clear knowledge of what is to be done. She believes, too, that a house can be well kept as easily as badly kept, and that a bright, clean, well-ordered home has a deal to do with molding the temper and even character of its members. "It is no small thing," she says, "to stand at the head of affairs, and be the motive power on which depend the welfare and credit, the health, temper and spirit of the whole family. When in midlife you come to find how essential the comfort of a well-kept home is to the bodily strength and good conditions, to a sound mind and spirit, and useful days, you will reverence the good housekeeper as I do, above poet or artist, beauty or genius." In the opening chapter of the book the author instructs Anna Maria in the art of "How to Make Home-work Easier." In the succeeding chapters she takes up the various kinds of work there is to be done about the house, and describes the easiest methods of doing it. "No attitudinizing," she remarks, "no fine lady affectations over the griddles and saucepans; instead, cultivate the fine character which acts up to the need of the hour swiftly, promptly, but with quiet and certainty." Her definition of "good food" is to the point. "It is not," she says, "rich food, nor even the tolerable fare which is just undercooked and flavorless enough to tax digestion more than it ought. It is the best of everything cooked in the nicest possible way, and with pleasant variety." Passing from the kitchen the care of the different rooms of the house is taken up — the chambers, the sitting-room and the storeroom; instructions are given for making "blue Monday" less blue; the arts of starching and ironing are discussed; and a chapter is given to the mending and darning basket. Other portions of the book are devoted to "Company Days," "Shopping," "Sickness in the House," "Making the best of Things," and "Helps that are Helps," the servant-girl question forming the subject of the closing chapter. The volume is very handsomely brought out, but even were it not, it would be worth its weight in gold to the young and inexperienced housekeeper.

LATE ADVANCES IN SCIENCE.

In a telegraph office in Pittsburgh, ten years ago, one of the most intelligent and skilful of American electricians was the centre of a group of astonished spectators at an experiment in the advance in the use of the electric current. Four different messages, coming simultaneously over one wire, were recorded on four separate slips of paper. All looked to him for an expression of the result of the experiment. He took up the printed messages, and after reading them aloud, one after another, he said: "I thought I knew something of electricity; but, in view of this wonderful feat, I must now declare that I know simply nothing." He appreciated the fact that what he had previously learned was as nothing to what was before him and what was yet to be learned. Such scientific men are not hasty to condemn the statements of other inquirers into the powers of the elements in nature.

In the wonderful developments of these ten years, the perfecting of the telephone and the electric light have shown the wisdom in the electrician's utterance. The storage and transporting in reservoirs of electricity as a power for use at a distance from the point of production is another advance not yet fully developed; but partial success has been attained. Thoughtful men have been led, in view of the experiments in this direction, to ask if it might not prove to be possible yet to store and transport any other element as well.

One of these lines of experiment has been carefully followed to accomplish the storage and transportation of oxygen as an appliance in the healing art. Men of scientific acquirements have long been convinced that it would be valuable, and a thousand experiments have been entered upon with this object in view. Some of these have approached very near success, and some of the stories told of them have been as interesting as those of the old alchemists.

People have been, for a long time, reading these stories of experiments and wondering if one of these days they should not find this problem solved, and now the question arises whether, in view of the evidence in the pages of a little paper published in Philadelphia once in three months, with the title of *Health and Life*, success has not already been achieved. If these statements are reliable, then oxygen (compounded with other elements) is being stored, it is capable of transportation, *and it heals!* Just as Delaney was the other day awarded the gold medal for pre-eminence in his incomparable instrument for duplex telegraphing, so to Drs. Starkey & Palen, of Philadelphia, is being awarded the verdict of pre-eminent success in this great discovery and the utilizing it in the cures of various forms of disease.

From patients cured by the use of this Compound Oxygen, stored in portable reservoirs, and transported by express to their homes, we have evidence of cures of various diseases, among which are asthma, catarrh, bronchitis, consumption, dyspepsia, hay fever, sick headache, and the ailments under the general title of nervous prostration and debility. The effect of the inhalation of the Oxygen, is to gradually build up and invigorate the system, enabling it to eliminate disease and then resist further attacks.

The little paper above mentioned is published once in three months, and in the last number, dated April, 1885, are printed letters from Alabama, Australia, Canada, Connecticut, Florida, Georgia, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Mississippi, Michigan, Missouri, New York, New Jersey, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Vermont, Virginia, and Wisconsin.

Among the writers of the letters in these papers of various dates we find the names of authors, editors, judges, physicians, clergymen; lecturers like Mrs. Livermore and Edward L. Wilson; business men like C. C. Cady, of Cady's Commercial College, in New York; Mr. Alonzo Clarke, head salesman of a large business house, also in New York; Mr. Arthur Hagan, Mr. George W. Edwards, Mr. W. H. Whiteley and Mr. Frank Siddall, of Philadelphia and Hon. William D. Kelley, who for twenty-four years has represented a Philadelphia district in Congress. These are such witnesses as would be gladly welcomed in establishing the truth of any cause. Some of the expressions used are very striking.

In addition to *Health and Life*, Drs. Starkey & Palen, whose address is Nos. 1109 and 1111 Girard Street, Philadelphia, publish in pamphlet the detailed statements made by HON. WM. D. KELLEY, for twenty-four years a Member of Congress from Philadelphia; JUDGE JOS. R. FLANDERS, of New York City, for many years the law partner of Hon. W. A. Wheeler, formerly Vice-President of the United States; the late T. S. ARTHUR (who never wearied in declaring that Compound Oxygen had prolonged his life more than ten years); MRS. MARY A. LIVERMORE, of Melrose, Mass., the popular and widely known Lecturer; CHAS. W. CUSHING, D. D., Pastor of the First Methodist Episcopal Church, Rochester, N. Y. These they mail free to any address on application. All are interesting reading.



THE CHILDREN OF WESTMINSTER ABBEY.

BY ROSE G. KINGSLEY.

X.

LORD FRANCIS VILLIERS.

ON the north side of Henry the Seventh's Chapel, close to King Henry's tomb, there is a small side chapel, divided off by a low wall of carved stone, and almost filled up by a magnificent monument. A splendid personage of the time of Charles the First, remarkably handsome, and dressed in robes of state, lies on the tomb beside his fair wife. Allegorical figures stand at the four corners. The recumbent effigies are in brass, richly gilded. Behind their heads kneel three children, a boy and two girls, beautifully carved in marble; and above this trio an exquisite child leans on his elbow, perfectly tired out with grief and fallen gently asleep.

Standing beside this tomb, Dean Stanley says:

We seem to be present in the Court of Charles, as we look at its fantastic ornaments ("Fame even bursting herself, and trumpets to tell the news of his so sudden fall") and its pompous inscriptions calling each State in Europe severally to attest the several virtues of this "Enigma of the World."*

Who, we may well ask, is this man who lies buried among the tombs of the kings of England, in state far exceeding that accorded to many sovereigns?

Every one who has read the history of the reigns of James the First and Charles the First will remember the most famous, and perhaps most dangerous of all the court favorites who helped to bring ruin upon England—George Villiers, Duke of Buckingham.

His story reads like a chapter out of the *Arabian Nights*:

Never any man in any age, nor I believe in any country or nation, rose in so short a time to so much greatness of honour, fame, and fortune, upon no other advantage or recommendation than the beauty and gracefulness of his person.†

Young and exceedingly handsome, James the First took George Villiers, the son of a Leicestershire squire, into favor on the disgrace of his first favorite, the Earl of Rochester. In an incredibly short space of time, "Steenie," as his royal masters called him, rose through every rank of the peerage to a dukedom, and to the actual direction of English policy. Haughty, reckless, selfish, his only good quality was his personal bravery.

This was the man whose evil influence made itself felt throughout England, who plunged the country into disastrous wars and encouraged King Charles in those fatal measures which at last brought him to the scaffold. When Charles the First came to the throne in 1625, Buckingham was at the height of his glory and power. In vain did Parliament remonstrate with the king. In vain did they petition him again and again to rid himself of a favorite who was becoming more hated and dreaded by the country each year. In vain did they impeach Buckingham. Charles, in his blind affection, took all the blame of the duke's deeds upon himself—burnt the remonstrance of the Commons—and actually dissolved Parliament in order to save his favorite.

But what the Commons of England failed to do, came to pass by the hand of one discontented man.

The Duke of Buckingham, after wasting men, money, and English prestige, in one disastrous expedition to help the French Protestants at La Rochelle, was on the eve of setting out for a second attempt to relieve the beleaguered town. He was at Portsmouth, and was to embark the very next day, when he was stabbed by John Felton, a lieutenant in the navy who had been disappointed of promotion.

All England and the court rejoiced at the death of the favorite. But King Charles "flung himself upon his bed in a passion of tears when the news reached him."* On his first visit to the widowed Duchess of Buckingham he promised to be a father to her sons. He ordered the duke to be buried in the Chapel of Henry the Seventh—which hitherto

* Stanley. "Memorials of Westminster." p. 237.

† Clarendon. Vol. I. p. 16.

* "Short History of English People." Green. p. 488.

had been reserved for anointed kings. And it is George Villiers who lies in state to this day on the splendid tomb we have been looking at.

Soon after the duke's death, the lovely boy who leans sleeping above his father's monument was born.

The king stood godfather to the baby at his christening, together with Francis, Earl of Rutland, the duchess's father. "After some compliments who should give the name," the king called the baby Francis, and the grandfather gave him his benediction, which was in the very pleasant form of seven thousand pounds a year.

King Charles faithfully kept the promise he had made the duchess. Alas! it had been well for him had he kept all other promises as faithfully. He was indeed a father to young Francis and to his

lege-book in the same year as that of Prince Charles. And here among other famous and learned men, they made the acquaintance of Abraham Cowley, the poet, who had lately published his pastoral comedy "Love's Riddle," which had been performed by members of the college.

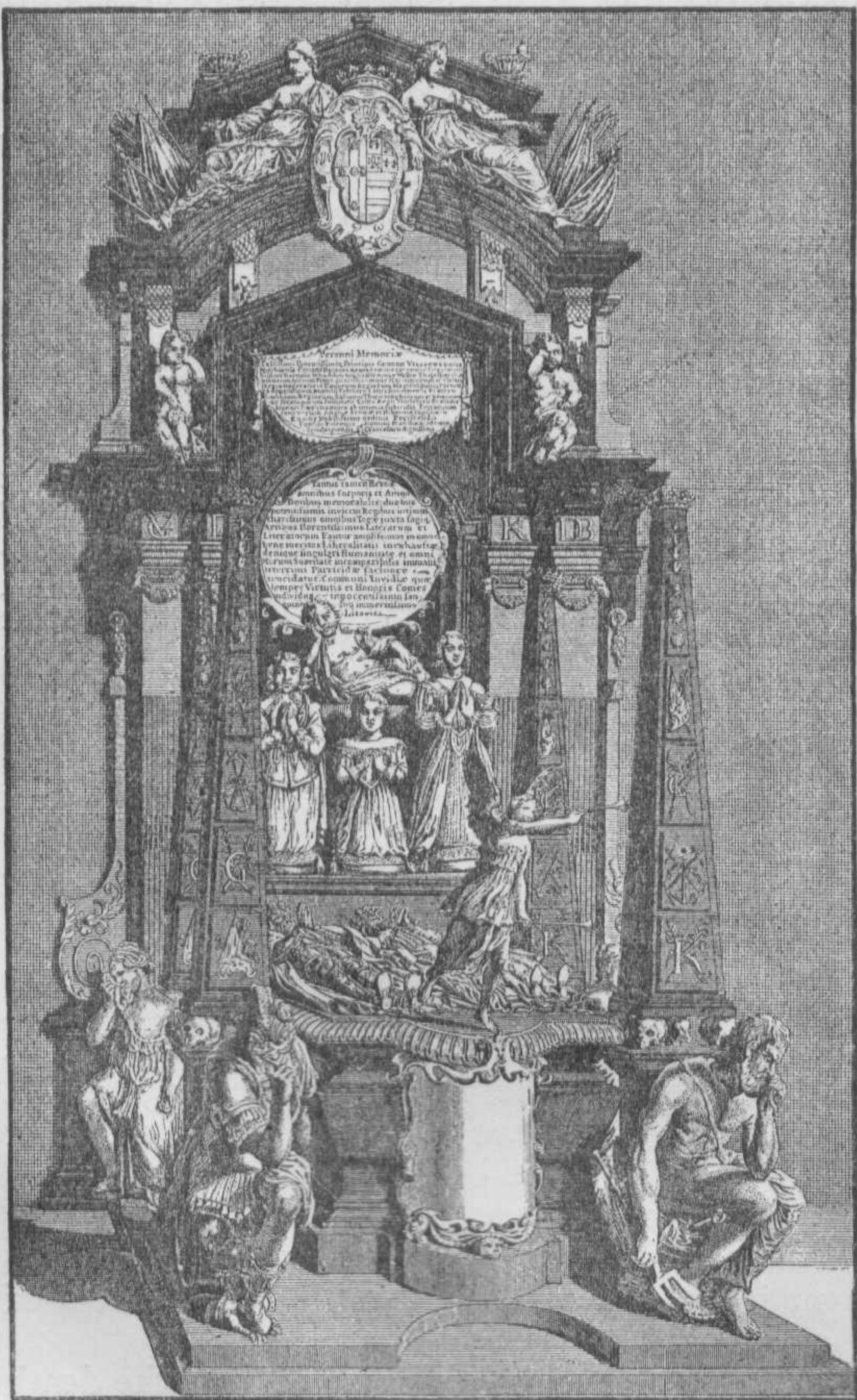
From Cambridge the two brothers went to travel under the care of Mr. William Aylesbury, who was appointed their tutor by the king. But their sojourn abroad was short.

Public affairs had been growing darker and darker at home. And at last, in 1642, there was an open breach between the king and the Parliament. The Royal Standard was raised at Nottingham, August 25; and England was plunged into civil war, the most horrible of all scourges that can come on any country.

Francis Villiers was fourteen years old, and his brother, the young duke, a year older. Boys as they were, they now tried to show their gratitude to the king for his care of them. Upon the outbreak of the Civil War they hastened back to England. The king's headquarters were at Oxford; and his nephew, the famous Prince Rupert, kept the whole country between Oxford and London in constant alarm with his sudden raids and fierce skirmishes. To Oxford then the two young brothers came. They were a beautiful pair, inheriting from both their parents "so graceful a body, as gave lustre to the ornament of the mind." Full of headstrong courage, they "laid their lives and their fortunes at the king's feet," and chose Prince Rupert and Lord Gerard as their tutors in the art of War. They soon had their first lesson; for they were present at the storming of the Close at Lichfield on March 2, 1643. When they returned to Oxford, happily without harm after their first fight, their mother, the duchess, was very angry with Lord Gerard for "tempting her sons into such danger." But he told her it was by the boys' own wish, "and the more the danger the greater the honor."

Parliament at first seemed to look on this escapade as a serious offence, for they seized upon the brothers' estates. But they were soon restored in consideration of the two boys' extreme youth. However, says Bryan Fairfax, their historian, "the young men kept it (their fortune) no longer than till they came to be at an age to forfeit it again."*

To keep these young fire-eaters out of fresh honorable danger, the king placed them in the care of the Earl of Northumberland, and sent them abroad again. They spent the next four or five years in France and Italy, living chiefly in Florence and Rome, where they kept as great state as many sovereign princes. It was the fashion of those days to send young noblemen for a time to foreign countries; and the result in a good many cases was



TOMB OF GEORGE VILLIERS, DUKE OF BUCKINGHAM.

handsome, headstrong, worthless elder brother the young Duke of Buckingham.

The boys were brought up with the royal children under the same tutors and governors. They were sent quite young to Trinity College, Cambridge, where their names were entered in the col-

*"Life of George Villiers, Duke of Buckingham." Bryan Fairfax.

that they abjured Protestantism and returned to England either concealed or avowed Roman Catholics. But the Villiers brothers "brought their religion home again, wherein they had been educated under the eye of the most devout and best of kings." *

The moment at which the young men returned was a critical one. The royal cause had been going from bad to worse. And at the beginning of 1648 England was in the hands of Cromwell and Fairfax. The king, given up by the Scots the year before to the Parliamentarians, was a prisoner at Carisbrooke Castle in the Isle of Wight. The Royalist forces were scattered and broken; and it seemed an almost hopeless task to make any further resistance in the king's behalf. Nevertheless, there were still a few faithful followers left; and the old English love for the monarchy still blazed up here and there in fierce outbursts against the Parliament and its army. But the Parliamentarians despised all these attempts; until in the spring of 1648 a serious rising took place in Kent, which was suppressed after a heavy fight at Maidstone. It was just at this juncture that the young Duke of Buckingham and his brother Francis returned to England. Strong, active, and courageous, they were burning with zeal to venture their large estates for the crown on the first opportunity.

They had not long to wait.

No sooner was the Kentish rising quelled than the Royalists crossed the Thames into Essex, and collected a large force at Colchester, intending from thence to march on London. Fairfax invested the town, and besieged it for two months until it fell, August 27.

Meanwhile the Earl of Holland had offered his services to the queen, his late mistress, in Paris, and informed her of his resolution to adventure everything for the king. The young Villiers' threw in their lot with Lord Holland, and declared themselves ready and willing to sacrifice their estates and their lives if need be in the royal cause. The siege of Colchester which engaged the main body of the army under Fairfax seemed to offer a good opportunity for a rising nearer London. The young Duke of Buckingham was made General of the Horse. Lord Francis Villiers and various other young noblemen were given other posts. And these hot-blooded lads, impatient for action, urged Lord Holland to begin his perilous undertaking without further delay.

Unhappily for them the whole business was miserably mismanaged. Such a rising could only hope to succeed if it were kept the most profound secret. But so far from being a secret, it was, says Clarendon, "the common discourse of the town." There was a great appearance every morning at Lord Holland's lodging of officers who were known to have served the king.

* Fairfax.

His commission showed in many hands; and no question was more commonly asked than — when doth my Lord Holland go out? and the answer — such and such a day; and the hour he did take horse, when he was accompanied by an hundred horse from his house was publickly talked of two or three days before.*



LORD FRANCIS VILLIERS. (After Vandyck).

But these indiscretions were not all. The first rendezvous was to be at Kingston-on-Thames — the charming old town full of old red brick houses, and sunny walled gardens full of lilacs and laburnums and cedars of Lebanon, ten miles southwest of London. Here Lord Holland stayed for two nights and one whole day, expecting numbers to flock to his standard, "not only of officers, but of common men who had promised and listed themselves under several officers." † During his stay, some officers and soldiers, both of foot and horse did come. But the greater number of those who resorted to Kingston were "many persons of honor and quality," who came down from London for the day in their coaches to visit the little army, and returned to town again, "to provide what was still wanting and resolved to be with him soon enough."

Is it not a pitiable story? Want of plan, of management, of forethought, of seriousness. The whole thing arranged like a play upon the stage. The fair ladies, and the gallant cavaliers in their curly wigs and deep Vandyke collars, driving down on

* Clarendon. Vol. XI. p. 102.

† Ibid. Vol. XI. p. 102.

the hot summer day to visit their friends, and laugh and talk over the great victory that without doubt they would win—the victory that would restore the king to his throne, and drive the Parliamentarians into the sea. And beautiful young Francis Villiers, in the heyday of his youth and strength—his debts all paid two days before*—longing for a chance to strike a blow for the king who had been a father to him.

How the grim puritan soldiers must have laughed at such a set of amateurs in the art of War. They were not far off—those grave fighting men.

The chief officer with Lord Holland's band, was one Dalbeer, a Dutch malcontent. He seems to have been as incompetent as the rest of the little army; for he kept no watch at night round the camp.

Early on the morning of July 7, the Parliamentary Colonel Rich, "eminent for praying but of no fame for fighting," surprised the town with a troop of horse. There was a general scrimmage. No one was ready to receive them. Lord Holland and a number of his followers made the best of their way out of the town, never offering to charge the enemy. Most of the footsoldiers and some of the officers, "made shift to conceal themselves until they found means to retire to their close mansions in London."†

But Francis Villiers alone seems to have made a stand. At the head of his troop, his horse having been killed under him,

he got to an oak-tree in the highway about two miles from Kingston, where he stood with his back against it, defending himself, scorning to ask quarter, and they barbarously refusing to give it; till with nine wounds in his beautiful face and body, he was slain.‡

So died Francis Villiers, in the twentieth year of his age—"This noble, valiant and beautiful youth," says Fairfax. "A youth of rare beauty and comeliness," says Clarendon. And so ended the unhappy fight of Kingston. Dalbeer defended himself till he was killed. Lord Holland with a hundred horse, wandered away and was caught at an inn at St. Neot's in Hertfordshire, and sent prisoner to Windsor, of which place he had but lately been constable. The Duke of Buckingham reached London, and hid until he could escape to Holland, "where the prince was; who received him with great grace and kindness."|| And in six months the king, for whom young Francis had died, was led out to execution at Whitehall.

Lord Francis' body was brought from Kingston

by water up the Thames to York House in the Strand; and was then embalmed and laid in his father's vault in Henry the Seventh's Chapel.

The late duke's magnificent monument, and the position in which it was placed, gave rise to much comment at the time. No monument had been erected to King James. And when Charles the First sent for Lord Weston "to contrive the work of the tomb" for his favorite, Lord Weston, putting into words the opinion of the greater part of England "told his Majesty that not only our nation, but others, would talk of it, if he should make the duke a tomb, and not his father."*

The tomb, however, was made. Henry the Seventh's Chapel for the first time was opened to a person not of royal lineage. And by the irony of fate, this burial of a royal favorite paved the way for the interments of many others in the next thirty years who were not of royal blood, and were bitterly opposed to kings and all that pertained to them, save power.

Two years after Francis Villiers was killed at Kingston, Ireton, Cromwell's son-in-law, was buried in a vault at the extreme east of Henry the Seventh's Chapel. Then came Blake, the first of England's naval heroes—Colonel Mackworth, one of Cromwell's Council—Sir William Constable, one of the regicides—Worsley, Oliver's "great and rising favorite." And Bradshaw, Lord President of the High Court of Justice, was laid "in a superb tomb among the kings."

Ten years after Francis Villiers' death, Cromwell's favorite daughter—the sweet Elizabeth Claypole—was buried in a vault close to the entrance of the Villiers Chapel. She was the "Betty" of Cromwell's earlier letters, "who belongs to the sect of the seekers rather than the finders. Happy are they who find—most happy are they who seek."†

The great Protector never held up his head after the death of this lovable woman; and within a month of his daughter's funeral "his most serene and renowned highness Oliver Lord Protector was taken to his rest"‡ in the same Chapel in which we have spent so much time of late.

If we needed any fresh proof that the great Abbey of Westminster is a sign and symbol of reconciliation, here is one. Within its walls Kings and Covenanters, Puritan women, and gallant young Cavalier nobles who fought against those women's husbands and fathers, lie side by side.

The feuds, the hatreds, the heart-burnings, the differences, political and religious, are all forgotten; and nothing is left but the common brotherhood of man with man, in the still peaceful atmosphere of England's Pantheon.

* When he left London he ordered his steward, Mr. John May, to bring him a list of his debts, and he so charged his estate with them, that the Parliament, who seized on the estate, payed the debt.—FAIRFAX.

† Clarendon. Vol. XI. p. 104.

‡ Fairfax.

|| Clarendon. Vol. XI. p. 105.

* "Court and Times of Charles the First." Vol. I. p. 391.

† Carlyle's Cromwell. II. Vol. I. p. 295.

‡ Commonwealth Mercury. Sep. 2-9, 1658.

SOUVENIRS OF MY TIME.

BY MRS. JESSIE BENTON FREMONT.

X.

SAINT LOUIS (*continued*).

IT so chanced that my marriage connected me still more closely with Saint Louis and all the interests of its neighboring countries because of their connection with the explorations of Mr. Frémont.

I would go with him to the Delaware Indian country on the frontier and stay until the expedition was ready to start; sometimes returning to Washington, and sometimes remaining in Saint Louis. The frontier of then is now Kansas, and its Indians and wolves and unbroken green stretches of prairie are only a memory; and the present conditions of quick travel and quicker information must almost prevent your having a clear idea of the uncertainties of those journeys. They were very wearing; and being so well understood by the people of that country I was taken into their most friendly sympathy when month was added to month, and another year of silence began without any news from the party.

The old whaling days of Nantucket have these experiences as legends among them, where absence and silence lasted for years, but that was the sea. Here, on land, was then the same unbroken silence with its fears and anxieties, and its useless hopes. At one time, in Saint Louis, for eight months we watched every day, and each night made preparation for the sudden arrival of Mr. Frémont. It was fully time for his return, but we could not hear of him in advance. As fast as horses, and then the river boats, could come he would come — there was no other way to hear. So through the winter, through the spring, the lamp burned on until the sun rose,

Burned vain through the night,

as for Lochiel; and the pretty little supper-table was undone each morning to be set afresh for the next night — for eight months! A long time when one is very young.

Toward the last a rumor came through Indian sources that the party had had a time of desperate suffering from snows and starvation; though this was known and discussed by every one it was kindly kept from me, but I felt there was something under the added expressions of protecting tender friendliness.

Things do not happen as we arrange for them,

but as they arrange themselves, and the arrival was oddly different from our plans of welcome.

Early one summer morning we were roused by a message from my elder cousin to ask if Mr. Frémont really *had* arrived? (I was just then with another of my cousins.) The messenger said Gabriel (the coachman) had said so; that he insisted he had been waked by a lot of gravel thrown into his room through the open window; that in the moonlight he saw the Captain "in his uniform and thin as a shadow," who asked him if everybody was well, and could he let him into the house without making a noise? That first he took it for a ghost, but he made sure it *was* the Captain, and he answered I was at Mis' Anne's — that Mr. Potts (my cousin's husband) was very sick.

"And then the Captain went off, quick, down town."

Poor Gabriel occasionally drank, so he was held guilty of that this time, as there was nothing at Mis' Anne's to support his story. But it put us all astir, for there seemed some foundation. My nurse promptly assumed the ghost theory and mourned accordingly when — enter ghost! — in the life, but not in the flesh, for he was awfully worn.

Gabriel was a proud man now that he was justified. Mr. Frémont *had* waked him as he insisted, and had hurried off from the stable toward Mrs. Potts' house, the parsonage adjoining the Presbyterian church. There, he could only enter by ringing, and that would rouse the family. Mr. Potts had hemorrhage of the lungs, and it would be a risk to him to be suddenly waked. Day was near breaking, so he thought he would walk about until some servant should be stirring.

The only green spot with trees was the open ground in front of Barnum's hotel, and there he sat on a bench watching for the slow stars to grow pale. One of the hotel people seeing the uniform came out and hospitably offered a room, when he recognized Mr. Frémont, who explained his waiting there.

Every one knew each other yet, though Saint Louis was now a large city. Mr. Potts was greatly loved and this care for his rest was understood. Mr. Frémont could not refuse the offered room and bed pressed on him — the first bed he had seen in eighteen months. He had no longer any responsibilities, or anxieties; he knew we were all well; it was dark still, and so it fell that sleep came on him — the exquisite sleep of body and

mind at rest—and this gave time for Gabriel's ghost story to travel from house to house, for the sun was well up before a break came to that deep wholesome sleep. And once awake he met such a welcome all along his way that we had become completely puzzled about him. The parsonage was thronged with welcoming friends, and we left for Washington with the most hearty good wishes for both of us.

After this, and with all my happy memories of Saint Louis, think how hard it was to go back there to the feeling that met us in '61—in the beginning of the war.

Everything was changed. There was no life on the river; the many steamboats were laid up at their wharves, their fires out, the singing, cheery crews gone—they, empty, swaying idly with the current. As we drove through the deserted streets we saw only closed shutters to warehouses and business places; the wheels and the horses' hoofs echoed loud and harsh as when one drives through the silent streets late in the night.

It was a hostile city and showed itself as such.

One gentle touch from the past softened this. My cousin herself was absent, and her family was in France, but she had written to her man-of-business to meet us and take us to her beautiful house where we had always felt at home. More than ever it seemed home now; the old butler, "uncle" Vincent, slow and gray, met and welcomed us, and from the wall smiled down in lasting youth and sweetness the young cousin who had known but seventeen happy and beloved years. Into that upper parlor where the closer family life had left its impress many troubled men came and found moments of rest. My cousin insisted we should use the house as we needed and it became the Headquarters of the Western Department. Standing in its own grounds with three streets bordering them, it was convenient for the review of the regiments which came pouring in from neighboring States. This is not the place to begin to tell of that mighty time. I only speak of the bit of home surviving the storm of war and giving us this ark with some household gods still left in it. There came the good Dorothea Dix, "given of Heaven" surely, for the help of the insane and prisoners, and now of the sick and wounded. And there came, every evening, after the army left, the good Admiral Foote, whose heart was sore that the work on the gunboats was stopped and precious time being given to the enemy to fortify. And there came General Sherman while waiting orders—out of favor because he had said not sixty nor ninety thousand men, nor two hundred thousand could end the war. And there General Grant was given his first command—and many and many a link of historical interest connects with that stately house which was now all that was left me of past days.

Though the old kind feeling crept out in side ways. Fine old linen, bottles of good wine, would be sent to me, without names, but with a line to say they were for the sick in hospital; and one said, "Not sent to the wife of the Yankee General, but to the daughter of Mrs. Benton who always gave to all needing help."

Of all wars none can approach a civil war for distressing complications. I went there in July with brown hair, and came away in November gray.

A later memory is of a beautiful day of honors and good-will and a revival of old friendly feelings which came comfortingly, and remains the governing impression.

In the summer of '68 I was invited to come to Saint Louis and unveil a statue of my father. It was a bronze, cast in Munich, and on the pedestal were his words which time had made into a prophecy, though for many years they had the usual fate of ideas in advance of the public. I had seen persons smile significantly to each other, some even touch their foreheads with a gesture to intimate that much thinking on this subject had warped his mind—it is so much easier to imagine one's self superior than to be really so. "Men said he was mad, now they asked had he a God?"

For on this pedestal, where the bronze hand of the statue points *west*, are the words:

"THERE IS THE EAST."

"THERE LIES THE ROAD TO INDIA."

From his long intimacy with the old explorer of the Oregon and the instructive talks with not only General Clarke but many and many a fur-trader and trapper and "mountain-man"—from the missionary priests—from all sources my father gathered in and pondered on all he gathered of this great vague Western land of ours with its one only difficult harbor at the mouth of the Columbia.

He remembered that in the War of 1812 Commodore Porter, the father of our Admiral Porter, for want of an American port had to destroy about eighty ships taken by him in the Pacific. Many were whalers, and their loss told on London itself. It was said of Commodore Porter in Parliament, that "he had caused the lights of London to burn dim for a year"—but think of the prize money he lost!

It became my father's fixed idea, with a growth proportioned to the greatness of the subject, that this great West must be opened to emigration, and, when possible, a good harbor secured on the Pacific. You may say *the* good harbor, for there is but the one—that of San Francisco.

Was it not a good fortune that I should make the connecting link between my father's thought, and that thought made action by Mr. Frémont—

between the thought that shaped and planned, and the plan made living by action expanded as circumstances gave opportunity!

Nothing would have been more easy than to have Mr. Frémont kept on duty in Washington; but he had been already some years on the surveys of the Upper Mississippi and had known the inspiration and largeness of the great prairies, and the stories of the Rocky Mountains and the unknown land beyond were already to him, as to my father, of the deepest interest. So the two minds and wills became one, and step by step their work was accomplished.

To me, the Westward history of our country has been not alone its public phase, but the fireside talking and planning, the weighing of obstacles, and wise foresight of opposition—all rightly estimated, but none suffered to outbalance the one aim: the opening up of our Western country to the Pacific coast, and the acquiring more of that coast. Louisiana, Florida, Texas, all had been acquired in my father's earlier day; he knew the opposition each had met, and did not intend to have it roused in advance to interfere with what he knew then, and what our whole country to-day knows, was a crowning advantage to our national strength—the holding the best port on the North Pacific. When there rose a cloud of war between us and Mexico the opportunity came. And it resulted in our taking California. With his compelling will, and his political strength in Washington, and his certainty of long and complete understanding and faithful co-operation and the using of every favoring chance by Mr. Frémont, my father could act with apparent suddenness—but officially it was only giving the expected signal. And he knew who he had to rely on.

How it would have gratified my father could he have seen that splendid May-day fête in his honor.

Often I feel what a mistake it is to let our great men go uncheered by the vitalizing force of affectionate esteem in which so many have really been held. As a people we are growing more natural and direct in such expressions, but to reserve them for funeral honors can bring no comfort or strength then to the strong brain that labored for them.

The large Park was filled with a holiday crowd—over forty thousand, I was told. The children of the

public schools, dressed in white, and, boys as well as girls, carrying large bunches of roses—my father's favorite flowers, were grouped, many thousands of them, around the base of the slight rise on which the statue had been placed; toward the valley below, the trees and shrubbery had been cleared, leaving an open view of the line of the Pacific Railway.

By a strange chance all the family were dispersed—some in California, some in Europe. Only Mr. Frémont and myself could be present. And I took with me as part of the old home one person, my grandfather's faithful body-servant Ralph. My parents gave him his freedom after my grandfather's death, but after trying various things he came back to his own family and lived with us "on wages" as long as any of the elders remained. Then he settled in Saint Louis and was now a trusted man in a bank there.

My grandfather at a race in Richmond bought the winning horse, jockey and all—in the sad fashion of that day; the little jockey, Ralph, was from the Brandon estate of the Harrison's and called himself always Ralph Harrison of Brandon. Did not the statue mark wonderful progress in our country? not only the completed ownership and occupation of a new empire on that Pacific coast, but there, and everywhere in all our country—free labor.

As the veil fell away from the statue, its bronze gilded with the warm sunshine, the children threw their roses at its base; at the same moment the outgoing train to San Francisco halted and saluted with whistles and flags; and when the speaker of the day dwelt on the public schools, and homestead laws, which had been cherished measures of my father's, who felt for all children, women and helpless people, all knew he deserved the words of praise given him.

He could not hear these; but he had seen success come to his hope of a country bathed by both oceans—from his own home and hearth had gone forth the one who carried his ideas to fullest execution. And after many perils and long absences and doubts and fears all had ended like a fairy tale in everything his heart could wish; for wealth and leisure came with the new country, and we were back with him—back, even to a seat in the Senate beside him for the one we had often feared would return no more.

THE TEMPERANCE TEACHINGS OF SCIENCE.

X.—THE ACTION OF ALCOHOL UPON THE BRAIN, SPINAL CORD AND NERVES.

BY PROF. A. B. PALMER, M. D., LL.D.

IN the last chapter some of the effects of the Narcotics, as a class, on the nervous system were pointed out, and their liability to produce narcotic *habits* were dwelt upon.

Nothing relating to our existence is more interesting in Science, or more important to our well-being, than the formation of habits. Men are sometimes said to consist of *bundles of habits*, and certainly our habits largely determine our characters, our usefulness, and our happiness. They not only make us what we are, but what we shall be.

Habit is defined as a quality given to our organism by use. The primary law of habit is, that all vital actions tend to repeat themselves, or to become easier of performance, and more likely to be performed the more they are repeated. Every act, physical or mental, performed or suffered, leaves an impression upon the organ performing it, rendering the organ more able and more inclined to perform it again. There are exceptions to this broad statement, but it is strictly true in reference to the formation of habits. As we have seen, many strong impressions upon the nervous system create an intense desire for their repetition, and acts in general tend to be habitual. Addison, the essayist, long since said, "Do that which is best, and habit will render it most agreeable;" and when we do what is worst, habit renders it, if not most agreeable, at least more easy and more likely to be continued. The habitual acts of young people establish in them dispositions and characteristics which are seldom materially changed, and almost never completely eradicated; and the qualities thus acquired become so fixed and constitutional as to be transmitted from generation to generation. It is by this law of transmission that the sins, or evil qualities, of the fathers are visited upon the children; and by the same law blessings come to thousands who on the part of their ancestors and themselves keep the commandments—obey the physical and moral laws. A wicked disposition, acquired by wicked habits, desires wickedness; and a narcotized brain desires narcotism, and is followed in after-generations by brains more inclined to acquire the narcotized state.

These facts of habits and their hereditary transmission are so important as to justify their repeated statement in a series of articles intended to convey scientific truths which have a bearing upon the deepest interests of all for whom they are designed.

But what are the effects, immediate and remote, which alcohol, in the different degrees and modes

of its use, has upon the Brain and Nervous System, and through these organs upon character and destiny?

In answering this question it will be well to consider, *first*, the more immediate effects of a single or a few doses, and then the effects of its continued use in different quantities. It should be borne in mind that we are not discussing the strictly medicinal effects of alcoholics in special diseases, or in the shock of accidents. These are questions which belong to the medical profession, and respecting which those without the profession are not supposed to have definite opinions, at any rate, not more than they should have about arsenic, strychnine, or other powerful medicinal agents. We are considering the essential action of alcoholic drinks on the system without reference to their modifying influence upon diseases; though the opinions entertained respecting their essential, or what is called their physiological action, should largely govern their omission or use in diseases.

The first impression alcohol makes upon the brain, after being taken into the stomach, is that conveyed from the latter organ by nervous sympathy, or by that peculiar relation between different parts of the body established by the everywhere prevailing nerves, by means of which an impression upon one part produces an impression of some kind on other parts. The sympathy between the stomach and brain is very intimate, as is well known generally, and is especially understood by those who are dyspeptic.

This first impression of alcohol upon the brain by sympathy with the stomach, is very speedily produced, and is comparatively short; or if continued longer, it is observed by the stronger and more enduring effect produced by its being absorbed and carried by the blood to this organ.

This first sympathetic impression, when only a fairly moderate quantity of the alcohol is taken, is to a certain extent, and in a certain way, often exhilarating. In depressed conditions it often arouses the system, and it relieves fainting almost as speedily as dashing water upon the face; indeed it acts upon a similar principle, though rather more permanently. It is this sympathetic, transient, apparently exhilarating effect that gives the idea, which is so common, that alcohol is a stimulant; though it is not so in its direct effect by its presence in an organ, as was shown in the experiments upon the heart, an account of which was given in a former chapter.

But very soon after being taken into the stomach the alcohol begins to be absorbed and carried to other organs, and it speedily reaches the brain. Free portions of it are retained there, and produce other effects to be described.

Though alcohol is a narcotic producing its more ordinary effects, like other narcotics, by its peculiar relations to the vital properties of the brain, yet unlike most of them it has chemical or mechanical effects upon the brain's structure. From the peculiar composition of this organ, and perhaps from its containing more moisture than other organs, a larger quantity of alcohol, after its imbibition, is found in its substance than in other tissues of the body. By its great affinity for water, it takes from the soft, delicate and moist tissue a portion of its moisture; and when the alcohol is free in quantity, it takes the water to such an extent as sometimes to coagulate the jelly-like matter; but ordinarily it produces a slighter physical change in the brain's structure, but which nevertheless interferes with these minute motions which take place in the performance of proper functions.

The long-continued use of quantities not immediately so disastrous, produces various structural changes, which are often markedly perceptible; and in chronic alcoholic disease, hardening of the brain structure; increase of the connective tissue, with diminution of the proper brain cells; thickening of the membranes, and effusions of serous fluid into the ventricles or cavities, are among the appearances often found. All these changes are usually accompanied with more or less inflammatory, and other degenerative processes, with a lowering and perversion of function, and with premature decay of all mental and physical powers.

But the more common and therefore more important effects of alcohol upon the brain, usually produced by smaller quantities than cause the gross chemical and mechanical effects just referred to, are produced by its *narcotic* or *vital*, rather than its chemical or physical properties. Other narcotics, such as morphine, atropine, nicotine, prussic acid, produce their effects independently of any recognized chemical or physical action, and alcohol produces its more ordinary effects by properties which do not produce these gross changes. The special cause of such effects—the particular change produced in the brain and nerves is not in all cases known. But the fact is known that changes in the vital conditions and actions of these important organs do occur—and when enough of the poison is taken, all action is arrested and death is produced, although no gross changes of composition and structure are discovered. Without further attempts to explain the cause of the peculiar action of alcohol on the brain and nerves, I shall endeavor to describe the leading phenomena which we see that it produces.

Alcohol, chloroform, arsenic, opium, or any other

narcotic or poisonous substance, may be taken in such minute quantities as to produce very little or no perceptible effect. A single whiff of chloroform may make an impression upon the sense of smell without any further effects being noticeable. So a single sip of wine, or a small quantity of brandy, as used in cooking, may impart a flavor, and possibly cultivate a taste, but without producing any other observed change in the organism.

When, however, sufficient of any of the alcoholic liquids is taken to produce appreciable or more marked effects upon the brain and nerves, *four stages* may be observed. These stages shade off into each other, and are determined by the quantity taken and the susceptibility and other conditions of the person.

When a moderate quantity, as a glass or two of wine, or of spirits and water, is taken by one not much accustomed to the use of these articles a flush of nervous action is immediately experienced, and, as already stated, is chiefly from an impression conveyed from the stomach. There is usually an increased disposition to motion or to some form of action, a greater sensibility to some impressions and a more ready response to them. There is often, perhaps generally, a more rapid flow of ideas, and more agreeable feelings are commonly experienced; and if there be a sense of fatigue, it is apt to be relieved. A feeling of coldness, if existing, is abated; and by an impression made upon the nerves controlling the vessels of the surface they become expanded, more blood is brought to the skin, especially of the face, and increased external warmth is often perceived.

The heart, by the same nervous impression, is generally increased in the frequency of its beat, and possibly for a very short time in its force, especially if the person is fatigued, or depressed from any temporary morbid influence; but when the alcohol reaches the heart through the blood and is thus applied to its substance, the force of that organ is *diminished*, as was shown from the experiments recorded in a previous article. This is the *first* mild stage of alcoholic action upon a person in a state of comparative health, and all these effects soon pass away where so small a quantity is taken, leaving only a slight feeling of languor behind.

In the *second stage* when more has been taken, or when that taken has had its more full effect, the alcohol having accumulated in the brain, the flush of the face may continue, or become purplish, or in rarer cases it may fade; the temperature of the surface may continue, or it may be less, but that of the internal parts of the body, as a rule, is diminished; there is now a degree of mental confusion, with less precision of muscular motion, though there may be increase of the flow of ideas and of words from weakening or partial paralysis of the regulating and restraining functions; and for the same reason there is a more ready excitement of

the feelings of mirth or anger — of affection or hatred, and a more ready and unrestrained expression of such feelings. Indiscreet confidence, silly sentiment, extravagance and boasting, are apt to be indulged. There is now, in different degrees, the condition of "tipsiness." The man regards himself as stronger, wittier, and wiser than he is. The cares and responsibilities of life rest less heavily upon him, and in this condition he is less careful of proprieties and of obligations. With many the sensations are now more agreeable and a sensuous hilarity is experienced. This release from care and these agreeable sensations have given rise to many a eulogy in song upon the "pleasures of the wine cup," and have inspired the worship of Bacchus. It is claimed that the feelings of friendship are more ardent when pledges are made in wine; but it should be remembered that feelings of hatred are as apt to be excited as those of love, as is attested by the quarrels in the cups; and in lower natures impurity and fights are, even in this degree of the alcoholic indulgence, apt to result. In these lower natures, recklessness and criminality in this state are common.

But if indulgence was never carried beyond this point, was only occasional, and was practised only by men of well-regulated minds and characters, the immediate individual results would not be so disastrous, though often when the drinking is indulged only to this extent, the effects are markedly injurious upon the health of both the body and the mind; and constantly the short pleasure is followed by a much longer period of depression and gloom, and the sum of happiness is inevitably diminished rather than increased by even so judicious an indulgence.

The great objection, however, to such indulgence is, that a taste is developed and a habit formed which in so many instances carry the victim far beyond these limits, producing results which are to be described as we proceed — results not confined to the individual, but extending to his associates, to his family, to society, and to his offspring, to after generations. If the pleasure of this moderate indulgence were much greater, it could not compensate for the danger to the individual, and the injury of the example to others which such a drinking custom would inflict.

THE MAKING OF PICTURES.

BY SARAH W. WHITMAN.

X.

THE REPRODUCTIVE PROCESSES.—HELIOTYPES.

IN the last paper we saw how a new power for the making of pictures had come to us at the hand of Science. Slowly, by careful investigation and skilful reasoning, by happy guessing as to what might be done by scientific processes, and finding the verification in new combinations of scientific principles, the sun's ray was brought into the service of man in yet another form of usefulness; and the photograph was the result. So far so good. But given the *principle* upon which photography was based, and men's minds did not cease to play upon the modes by which this principle might be adjusted to further and varying results. Among the achievements of interest and importance which followed was what is now familiarly known as the "gelatine print;" and as this in many forms, is a process almost universally used and which furnishes probably more pictures of exact reproduction for the purposes of illustration than any other, we will look a little into the means by which these pictures come about.

The principle of photography, simply stated, is,

as you know, that action of the sun on a chemical agent (such as collodion) by virtue of which, when an image is thrown on the plate where the sun's ray strikes, as in the lights, the substance is hardened, so that it will not dissolve; while in the darks this substance remains unaffected, and can be washed away by certain solutions. If when the "negative" (as the result of this process is called) is duly finished, you hold it up to the light it will be seen that all the light places in the original image appear thick and opaque, while all the darks are transparent; and this is why it is called a negative — because it is exactly what the picture was *not*. But if, once more, you lay this negative upon a piece of sensitive paper, that is, paper rendered sensitive to the sun's action by the use of certain chemicals, and let the sunlight fall upon it, there will be printed upon the paper dark where the negative is light, and light where it is dark, and so the true picture, or the positive, will re-appear.

You see, I doubt not, why this happens: the transparent places in the negative allow the sun to pass freely through them, and where the sun touches the sensitive paper, it becomes dark; while the opaque spots hinder the passage of light, and so the paper which lies beneath them remains white.

Between these two extremes of light and dark are many more delicate shades which are called in artistic as well as photographic language, "half-tones," and which make the fineness and subtlety of pictures — and with a good negative these will all be carefully expressed. The photograph or print as it is called, is subjected to further chemical treatment, for the sake of removing the sensitiveness of the paper — as well as to make the picture permanent; processes that involve careful work and much time — after which it must be pasted upon another paper and otherwise finished, before it is ready for use.

In obtaining pictures by the photographic process thus briefly described, we shall find that an almost infinite number of prints can be made from one negative; yet as each one must be made separately and by a delicate and rather complicated process, it will be seen that the pictures gotten by pure photography must always be somewhat expensive; and the illustration of books and magazines cannot by this means be done cheaply — the mere fact of having to paste the photographs upon the pages necessitating so much hand-labor as to make serious cost. We shall see presently what a difference the heliotype makes in all these matters; and we will now ask what the heliotype is.

As I have said, it differs from the photograph not in the principle involved, but in the application of that principle. It was found that by the same laws there might be obtained not a positive print on paper, but something wrought into a solid substance, and in such a way that a new kind of printing might be had from its surface; and this discovery perfectly developed constitutes the heliotype, or sun-printing process. The process begins, as it is generally practised, by making a negative, with the half-tones carefully preserved, so that the greatest possible delicacy of gradation shall be had. A very thin sheet of gelatine the size of this negative is then slightly moistened and laid smoothly and firmly upon the glass, on the side which holds the picture. When it has had time to adhere, by taking hold of the gelatine at the edge of the plate it can be stripped off the glass, bringing with it the collodion in which the negative was taken; and there will thus be had a thin sheet of gelatine on one side, the collodion on the other, and that which constitutes the picture enclosed, as one may say, between them. This is what is known as a "gelatine negative;" and though it is of such slight material, it is extremely durable, may be kept a long while, and sent about through the mails even; for, as you see, it is liable to none of the accidents which befall glass.

Next comes the preparation of the gelatine plate. For this is taken gelatine in a liquid state, and carefully poured upon a sheet of glass laid perfectly level upon a tripod (the gelatine must first be sensitized with bi-chromate of ammonia, so that it

will be subject to the sun's action); and from its surface every bubble or slightest particle must be carefully removed. Then it is allowed to solidify and kept always in a dark place, in a temperature of one hundred and forty-five degrees. When the time comes to make the positive, just as in photography, the negative is laid over the prepared gelatine just as it is over the sensitive paper; and the sun works as before, with this exception — that instead of making a dark spot where it obtains access to the gelatine, it produces the effect of hardening it, so that it becomes insoluble in water. Now what happens as the result of this? On washing the plate in running water all the dark places remain firm and hard, all the light places are washed away, and there remains upon the sheet of metal a gelatine impress which is like a very delicate printer's block; carved in the most exquisite manner by the sun as if with a graver.

Here, then, is the especial advantage of the heliotype: the power of quick reproduction directly upon the required paper, printed with ink by a press.

Of course you would see, if you could examine for yourselves, certain intrinsic differences between the sun's carving and man's work. The little delicate ridges made by the hardened gelatine do not hold as much ink as an engraved surface; while the half-tones are produced by surfaces gradually fading into the lights, instead of by varied lines, as in engravings or etchings; and both these facts result in giving the heliotype print a certain thinness. In compensation for this, there are, on the other hand, modes of using ink which are possible only in this process, and by which unique and agreeable effects of tone are obtained. In one of the most important of all heliotype reproductions, the *Rubáiyát* of Omar Khayyám, lately published by Messrs. Houghton, Mifflin & Co., under the supervision of Mr. Millet, we have notable instance of what may be achieved by this method in richness and refinement of effect, and I would ask you to examine this carefully.

There are many questions of interest in regard to the perfecting and finishing of heliotype plates which I have not time for here; but which must be considered in a more careful study. Isinglass, for instance, is used to give a little grain to the gelatine, alum to render it less brittle; glycerine to keep it slightly soft; with other substances all valuable in making the *most* of this delicate process. The method of preparing the plate for printing, and the printing itself, is a matter of nice adjustment also. And in fact the whole method demands the use of chemical substances with scientific precision; while at the same time one must remember in all photographic work that it cannot depend wholly upon rule, but requires beside *precision* a yet finer quality, which is *judgment*.

There are many modes of varying the heliotype process known by as many names: as the Albertype,

the phototype, etc., etc., and, most admirable among them all perhaps, the photogravure. This last consists in covering the gelatine positive by a slight coating of copper, laid over it by an electrotpe process; the result of which is to give a somewhat richer and more elegant quality to the printing.

I have given you this account in detail because

of the great interest which must lie in understanding anything so exquisite as the processes here described; and because of the importance of heliotypes in the lists of reproductive work. You will see thousands of these sun-pictures, if you look for them in books and magazines; and to know how they were produced will I hope give you pleasure.

BOYS' HEROES.

BY EDWARD E. HALE.

X.

GENERAL LAFAYETTE.

MR. FIELDS was fond of telling of his surprise when a gentleman who had had decent opportunities of education asked him one day if he had known Mr. Pope, the poet, personally.

Mr. Fields would have needed to be one hundred and thirty years old to have seen the great poet — and as he was one of the youngest of men, till the day he died, he was much amused at the supposition.

Mr. Scroop was as much amused when Lucy Flint asked him, as they read the last *WIDE AWAKE*, if he had known General Israel Putnam. The dear old Wolf-Killer died ninety-five years ago. But Lucy is not very strong in her chronology. And, when the others laughed at her — and Mr. Scroop tried to relieve her, by telling her that she had not been rude, as she feared — he said, "To comfort you, Lucy, I will tell you that I have seen the next hero on this list with these eyes. I, who speak to you, have seen a hero!"

Some of the children had looked over the list, by the kindness of the Editors of the *WIDE AWAKE*. But Lucy had to ask which this modern hero was.

"It was LAFAYETTE," said he. "Marie Jean Paul Roch Yves Gilbert Motier, Marquis de Lafayette. He has a long name, but in America, in the army, he was affectionately known as the Marquis. And many a man was christened 'Marquis,' in his honor, a hundred or more years ago."

In Feudal times, and before, a man who was appointed to guard the *Marches* or frontiers of a kingdom was called by a name which was eventually corrupted into *Marquis* — and Lafayette inherited this title.

"Now he was a boys' hero indeed," said Mr. Scroop, "and a man's hero too."

"And what is the difference?" asked Will.

"To name no other," said his father, "I think that boys would like, in general, to have their heroes start early in life — and to shew that affairs may pivot on people of sixteen or eighteen, as well as on old statesmen of seventy-five."

"As they did when that dreadful child — in that impossible Sunday-school story — 'pushed a pound' in the fictitious launching of a ship which was never built," said Lucy.

"Do not be skeptical before your years, my dear. At any rate you will be satisfied with Lafayette — who was wounded in the battle of Brandywine when he was younger than some of the officers whom I have applauded in a school-drill in the Boston Theatre."

Winifred pricked up her ears at this and began to listen. "And were you at the battle too?" she said.

At this the others laughed heartily again, and explained to her that the battle was a hundred and eight years ago. To all which Winifred said that she did not care — that she was sure Mr. Scroop had said he had seen Lafayette — and she thought he might have carried him from the field.

Mr. Scroop hastened to explain that he saw Lafayette the day when the cornerstone of Bunker Hill Monument was laid. "I was a little boy," he said, "three years and three months old. I had had the scarlet fever, and was very weak. But when the procession with the hero, passed, on its way to the ceremony, it was wisely thought that I should be pleased to see the show, and I was carried to the window. The windows of the Parker House, opposite the Tremont House, look out on the same spot of the same street from the same side to-day. But then there was neither Parker House nor Tremont House."

"And how did he look, uncle John, was he walking, or was he on horseback?"

"Or was he borne on the shoulders of men?"

"Woe is me!" cried uncle John, "I am a living instance of the worthlessness of tradition. These eyes have seen him. But I do not remember one

least hair of his head. I do not even remember that I have remembered him. I do remember the green feathers in the hats of a militia company called the 'Rifle Rangers.' These pleased my young fancy more than the hero did.

"Also I remember the badges with his picture printed upon them. Some were pink, some were



BARTHOLDI'S STATUE OF LAFAYETTE.

blue, and some were white. And your aunt Mrs. Rhoades has one this day to show if what I say be true.

"But these realities are all I remember."

"How was he wounded when he was a boy, uncle John?"

"He was wounded in the leg, and he wrote his young wife a very pretty letter about it."

"Why, was he married already?" cried almost all the boys and girls, in amazement. "Pray how old was he when he was married?" asked Robert, who was at that age when boys wonder how their fathers ever had courage to ask any girl to marry them.

Uncle John explained again that so far as this

went, all the asking was probably done by somebody else. The young marquis, who did not remember his own father, was born on the sixth of September, 1757. He was at eleven placed in a school in Paris, and while he was there, his mother died. The death of her father made the young marquis a rich man. He was married at the age of sixteen. He was on duty with his regiment, in the city of Metz, a garrison town in the east of France, when the Duke of Gloucester, a younger brother of George the Third, came there on a visit. The young Lafayette met the young prince at a dinner party. The talk turned on the rebellion of the American colonies of England. What Lafayette heard then started him upon his career. It was the good fortune of the Duke of Gloucester to set in motion the most efficient ally America had in the revolution. When Mr. Scroop told the children this story he said, "I do not at this moment remember anything else which the Duke of Gloucester ever did for his country."

Nor do I.

Lafayette was thoroughly good about coming to help the rebels. He fitted out a ship at his own cost, with such stores as he thought would be of value, and sailed in her. His boy-letters to his young wife on the voyage and afterwards are charming. He calls her "*Mon cher cœur*," which means, I suppose, 'my sweetheart.' He sends pretty messages to his baby, Henrietta, whom he was never to see again.

Since my last letter, I have been in the country which is the most disagreeable in the world, I mean the sea—for the sea is so sad, and I believe that the sea and I mutually sadden each other.

And again he says,

I am still on this sad plain, and that is certainly the most tedious thing which one can do. There is nothing tedious enough to compare with it. To console myself a little, I think of you and my friends. I think of the pleasure of seeing you again. How charming the moment when I shall come home. I shall come in suddenly to embrace you without being expected; perhaps the children will be with you?—I have arrived at last, my sweetheart, in very good health, and am now in the house of an American officer. By the greatest good fortune in the world, a French vessel is just ready to sail. Think how happy I am!

Here is his account of his wound at the battle of Brandywine. In the earlier letters he had explained to his poor little wife that a general officer was really in no sort of danger. He had now to confess that in his very first battle he was wounded. I observe that he wrote to her immediately, but they would not let him write a long letter. "I begin by telling you that I am well, because I must end by saying to you that we had a good battle yesterday, and that we were not the strongest." Is not that a pretty way to announce a defeat?

Our Americans, after having held firmly for a long time, ended by being routed. When I was trying to rally them, the English gentlemen gave me, gratis, a musketshot, which has wounded my leg a little; but this is nothing, my sweetheart. The ball has touched neither bone nor nerve, and I am let off by being laid on my back for some time, which makes me very cross. I hope, my sweetheart, that you will not let this trouble you, for it is really a reason for being less troubled since it will keep me out of action for some time, because I mean to take very good care of myself. Be well assured of this — my sweetheart.

Afterwards, he says:

Now you are the wife of an American general officer, so I must teach you your lesson. People will say to you, "your friends have been beaten;" you will reply, "that is true, but between two armies, equal in number, in an open country, old soldiers always have the advantage over new; besides we had the pleasure of killing a great many people, many more of the enemy than we lost ourselves." After this, they will say, "that is very fine, but Philadelphia is captured, the capital of America and the bulwark of liberty." You will reply, "you're fools! Philadelphia is a sad place, of which the harbor had been closed already, and which the session of Congress had made famous; I don't know why. that is all there is about this famous town, which, in parenthesis, we will take back sooner or later." If after this, they annoy you with questions, you will send them marching in terms which the Viscount de Noailles will teach you, for I am not going to take my time in teaching you politics.

Now is not that a pretty letter for one sweetheart to write to another? He was twenty years old when he wrote it. He recovered from his wound, and he showed once and again, in very active campaigns, that he was a man of real military genius. But I am not going to tell you the story of his life, even briefly. To tell the truth, my wish has been to interest you all so much in his own way of telling it, that all of you who are sensible and bright shall go to the Public Library, shall take out the French book, and try how well you can puzzle out the French in which his letters are written. That is the true way to read history — to read it in the original authorities.

Lafayette flew backward and forward over the ocean whenever he could best help America. He was in the thick of the fight at Yorktown, and in that brilliant night attack on the two redoubts

which decided Cornwallis's fate, Lafayette led the American column. He entered his redoubt first, and was able to offer assistance to the French column which had assailed the others.

In the French Revolution he kept a level head, to borrow a convenient expression from modern slang — an expression so convenient that it will perhaps assert for itself a permanent place in language. In all the "might-have-beens" with which people try to tell how the French Revolution could have done its work, without its horrors, they have to imagine it going forward on the lines of Lafayette's wishes. He was at times the most popular of Frenchmen — and at other times was most detested by the frantic Revolutionists. After he had done his best for France, he had to leave France, and the Austrians were stupid enough to imprison him at Olmutz. Here is a most picturesque bit of history. Napoleon released him. But he and Napoleon never could work together. When Napoleon fell — and when the Bourbons fell in 1830, Lafayette's chances to serve France came in again — and he used them like a man.

But the government of the Restoration, the government to which we owe it that men now speak of an obstinate fool as a "Bourbon," quarrelled with him — and really, though not in form, sent him into exile. It was then, in 1824 and 1825, he came to America. The country received him with an enthusiasm worthy of itself and of France. The country did not know before how enthusiastic it could be. It was on this visit — fifty years after the battle of Bunker Hill — that he laid the cornerstone of the monument.

As you read history you will find that some men laugh at Lafayette. Carlyle, quoting Mirabeau, calls him "Grandison Cromwell" Lafayette, which means that he was a revolutionist who made bows, and relied on etiquette. Certainly Mr. Carlyle did neither. But if you will read carefully you will come out assured that he was no fool — that he was, as I have said, a man of real military genius — and, which is much better, you will believe him an upright and conscientious man.

ENTERTAINMENTS IN CHEMISTRY.

BY HARRY W. TYLER.

VII.

SULPHUR.

TWO forms of sulphur are familiar; the fine, yellow powder — "flowers-of-sulphur," and the solid roll-sulphur, or brimstone. These differ,

like snow from ice. We may convert sulphur, by heating, into invisible vapor; by cooling, reduce it to a fine crystalline snow; or simply melt it and allow it to solidify, or freeze, into solid brimstone.

Procure, if possible, a few glass test-tubes; or common clay pipes may be used, closed at the ends. Place in the test-tube half a teaspoonful of

flowers-of-sulphur, and heat cautiously over a spirit lamp. Or, place the pipe, half full, upon the stove. Guard against inhaling the fumes or spilling the melted sulphur; the experiments should be performed where there is a good draught. In either case, the yellow powder is soon converted — at two hundred and thirty-nine degrees Fahrenheit — into a brownish liquid. As the temperature rises, this grows darker, and finally becomes so thick that it will not flow if the tube is inverted. With test-tube and lamp, heating may be continued until when above five hundred degrees Fahrenheit — the sulphur is again thin liquid, and begins to boil. Pour this quickly into cold water; it solidifies at once, not in the ordinary form, but in a black, plastic state like gutta-percha.

This, however, soon reverts to the ordinary yellow brimstone. In case the melted sulphur be too dense to pour, let it cool quickly; then break the mass. The interior is composed of long, slender, interlaced crystals.

Sulphur is remarkable in the property of assuming different forms under different conditions. The crystalline flowers-of-sulphur, the black plastic mass, the needle-shaped crystals may be regarded almost as different substances; but, as we have seen, each may be converted into the other without adding or subtracting any matter at all.

Melt a little sulphur upon a shallow plate and ignite it. It burns with a beautiful dark-blue flame and a pungent, suffocating odor, intensely irritating to throat and nostrils. If we ignite cold solid sulphur, it melts, but soon ceases to burn. Heat is necessary for both melting and combustion; and as there is not enough for both, the latter ceases. Let us recall a case of combustion — that of the candle. We learned that the action was a rapid union of carbon and the hydrogen with oxygen of the air, forming carbonic acid and water. But while the candle contains at least these two different substances, we regard sulphur, like carbon, like hydrogen, as simple or elementary. No chemist ever has been able to obtain from sulphur alone anything but sulphur. We consider the whole earth to be made up of about seventy such elementary substances. The combustion of sulphur yields, then, neither carbonic acid nor water; but a new substance composed of sulphur and oxygen, called sulphurous acid. Like carbonic acid, it is a heavy, colorless gas; and it has a pungent odor, familiar to us — that of a burning match. It is much used for bleaching and for disinfecting. For the former purpose, we may suspend a moistened rose-petal over burning sulphur. The color fades away, but may be restored by dipping the petal in a stronger acid, as dilute sulphuric.

An interesting peculiarity of sulphur is its behavior towards the various metals. Mix thoroughly half a teaspoonful of fine iron-filings with twice as much sulphur. The mixture shares the

properties of its two elements; its color is a dirty yellow, it is lighter than iron, heavier than sulphur. Scatter a portion upon a sheet of paper, and pass a magnet beneath — we separate the grains of iron, drive them like sheep into a separate corner. Heat the mixture in a pipe-bowl, or small saucer upon the stove. As before, the sulphur begins to melt, but at the same time combines with the iron — seemingly dissolving it, until the powder is entirely converted into a dense, black mass, neither yellow like sulphur nor gray like iron, too tough for the former, too brittle for the latter; and if we grind it to powder, we shall find scarcely a particle magnetic.

It would be difficult to illustrate more clearly the distinction between physical and chemical combination. Our original mixture contained both iron and sulphur physically combined, and capable of separation by mechanical means. But the product is neither iron nor sulphur; it is a new substance, whose name — sulphide of iron — tells us its chemical composition. The most powerful microscope would fail to detect the particles of iron or sulphur, the most delicate mechanical art would be unable to separate them.

But let us not suppose that either has been lost. Imagine a grain of sulphur. Imagine it cut in halves, that we have overcome the physical force, cohesion, which united the two parts. Suppose this division continued until after the parts have become invisible. But finally even this imaginary process must cease; we come to a particle so inconceivably small that it can no longer be divided into others like itself. This we called a molecule — little mass; by physical means we can go no further. Now we have taken not a single molecule, but a great number of molecules of sulphur, and a great many of molecules of iron; mixed them, and applied heat. The product is a mass of molecules, not of sulphur, nor of iron, but of sulphide of iron — that is, each molecule contains both sulphur and iron. We infer that each molecule of sulphur, each molecule of iron, has been broken up, that the respective parts have re-united, formed new and different molecules. It appears that every molecule is composed of parts that can be held together or torn apart by chemical forces. These parts not susceptible to physical force we call atoms — indivisible.

When we heated our mixture, the chemical attraction binding together the atoms of iron, or those of sulphur, became less than that of an atom of sulphur for an atom of iron. Hence the atoms were torn apart, and each sulphur atom combined with an iron atom — forming a new molecule of sulphide of iron. Similarly when sulphur is burned, each atom, forsaking its companions, combines with two atoms of oxygen to form a molecule of sulphurous acid.

If you grasp this fact, you have the fundamental idea of modern scientific chemistry.

SEARCH-QUESTIONS IN AMERICAN LITERATURE.

BY OSCAR FAY ADAMS.

X.

ANSWERS TO MAY SEARCH-QUESTIONS.

AUTHORS AND THEIR SUBJECTS.

181. Of what nature are the works of John G. Palfrey?

182. Of what general character are the works of Clarence Cook, Chas. C. Perkins and James Jackson Jarvis?

183. Mention the names of four Shakespearean scholars of note.

184. Give the names of five writers upon political economy.

185. Upon what topics are the writings of John S. Dwight?

186. For what is John Woolman noted?

187. What curious theory do the writings of Delia Bacon and Nathaniel Holmes advocate?

188. What is the nature of Wm. Leighton's works?

189. For what kind of writing is Rev. Wm. M. Baker noted?

190. What is T. S. Arthur's best-known work?

191. Of what nature are the works of Hubert H. Bancroft?

192. What is the character of the works of the present president of Princeton College?

193. What kind of books did Miss Sedgwick write?

194. What poet is the author of "The Victorian Poets," and what is the character of the book?

195. What author attempted to prove that the earth is hollow, open at the poles, and habitable in the interior?

196. Mention the names of four writers upon philology.

197. What religious beliefs do the writings of the following clergymen represent—James Freeman Clarke, Newman Smyth, Morgan Dix, Orestes A. Brownson, and Samuel I. Prime?

198. How are Edwin P. Whipple's works classified?

199. Who is the most noted living political novelist in America?

200. By what work is Mrs. Martha J. Lamb best known? Of what periodical is she the editor?

141. "Paul Revere's Ride," by H. W. Longfellow.

142. "Pan in Wall Street," by E. C. Stedman.

143. The *Tales of a Wayside Inn*, by H. W. Longfellow.

144. "The Pipes at Lucknow," by J. G. Whittier, and "The Relief of Lucknow," by Robert S. Lowell.

145. "Barbara Frietchie," by J. G. Whittier.

146. The tomb of President Harrison at North Bend, Ohio.

147. The vicinity of Concord Bridge, at Concord, Mass.

148. "The Bells of Lynn," by H. W. Longfellow, "Lynn Terrace," by T. B. Aldrich, and "My Sailor," by James Berry Bense.

149. "The Hymn of the Moravian Nuns at Bethlehem," by H. W. Longfellow.

150. The River Charles, as will be seen by noting the frequent references to it in the verse of the New England poets.

151. "The Arsenal at Springfield," by H. W. Longfellow.

152. "Skipper Ben," and "Hannah Binding Shoes," by Lucy Larcom.

153. "The Palatine."

154. White Island, one of the Isles of Shoals. See Mrs. Thaxter's poems.

155. "The Wreck of the Hesperus," by H. W. Longfellow.

156. Monument Mountain is in Berkshire County, Mass., and is included in the towns of Stockbridge and Great Barrington.

157. Where

The moon looks down on old Cro'nest,
And mellows the shade on his shaggy breast.

158. "In the Churchyard at Cambridge," "The Herons of Elmwood," "St. John's, Cambridge," by H. W. Longfellow; "The Cambridge Churchyard," "Under the Washington Elm," by O. W. Holmes; "Under the Great Elm," by J. R. Lowell; and others.

159. In J. R. Lowell's poem, "An Incident of the Fire at Hamburg."

160. "The Cumberland," by H. W. Longfellow.

C. Y. F. R. U.

REV. J. H. VINCENT, D. D., AND REV. J. L. HURLBUT, D. D., SUPERINTENDENTS,
MISS K. F. KIMBALL, PLAINFIELD, N. J., SECRETARY.

[This department, while not less interesting to the general reader, is especially set apart for the CHAUTAUQUA YOUNG FOLKS' READING UNION, the young people's branch of the Chautauqua movement for popular home education. It supplies a course of reading for young people which is intended to give them the most valuable knowledge in the most interesting manner. The Required Readings are issued simultaneously in WIDE AWAKE and the CHAUTAUQUA YOUNG FOLKS' JOURNAL; a few added books form the Supplementary Readings. The Union is under the direction of REV. J. H. VINCENT, D. D., and REV. J. L. HURLBUT, D. D., as Superintendents, in connection with the Editors of the magazines mentioned above. Any person, young or old, may become a member of the Union by sending his name and ten cents in postage stamps to the Secretary, Miss KATE F. KIMBALL, Plainfield, N. J., to whom inquiries for further information may be addressed.]

TWENTY-FIVE years ago a number of boys were at school together in a country village, expecting to go to college when their preparation should be completed. One day, while passing the office of the village newspaper, they saw a card hanging by the door:

"BOY WANTED."

Now, one of these boys was a reader of the paper, and believed that the country editor was one of the greatest men of the age. The highest aspiration of his life was sometime to be an editor himself, and swing the editorial "we" in his own paper. He had already edited three or four short-lived periodicals, written, not printed, and read to the contributors and their friends at a weekly meeting. Here was a chance to rise to greatness, by entering the office as "printer's devil!" That boy ran home, and set before his father and mother the great opportunity that had fallen in his way. He begged of them the privilege of leaving school, and beginning life on his own account, at a dollar a week in the printing office. But his parents were inexorable—he must go to college! So after much vain persuasion, unwillingly he dropped the ambition, "for the present," he said to himself, and went back to his Latin grammar. Another boy in the same school obtained the place; and he is now, at forty years of age, setting type in a printing office in New York, not many rounds in the ladder above the level at which he started. A third boy was switched off from obtaining his education by a chance to enter a store; he is now a book-keeper making entries in big volumes about other people's money, but not gaining much for himself. Boy No. 1 went to college, and went through it, gaining an education. His life is in a far different sphere from that of his former companions, and he enjoys far more honor, and considerably more wealth. A while ago, the book-keeper and the collegian met, and after the customary greetings and inquiries, one said, "What a fool I was twenty-five years ago, when we were at school together! I made my mistake then!" Now young readers of the C. Y. F. R. U., was it the book-keeper, the printer, or the collegian that made the mistake?

THE chapter on Westminster Abbey in this number will naturally bring to our attention the stirring scenes of that wonderful age in English history, once known as "The Great Rebellion;" now generally spoken of as "The Cromwellian Epoch." The student cannot read too much about it, nor investigate it too closely, for it is the story of liberty for all

the world. Among the subjects for essays and studies suggested by the article we name the following, from which the local clubs can make their own selections: 1. The Life of George Villiers, Duke of Buckingham; 2. The Foreign Wars of Charles the First; 3. The Poet Cowley; 4. Causes of the Civil War; 5. Leading Events of the Civil War; 6. Prince Rupert; 7. The Trial and death of Charles the First; 8. The Deeds and Character of Cromwell; 9. Admiral Blake; 10. The Results of the Civil War.

IN connection with the Cromwellian period of English history some readings might be given at meetings of the club. There are some fine passages in Macaulay's famous Essays on John Milton, and in Green's *Short History of the English People* (Chapters VIII. and IX.), Macaulay's ballad, "The Battle of Naseby," for one side, and Robert Browning's "Cavalier Lyrics" on the other. There is a well-known poem, "Curfew shall not ring to-night," which relates a story of this period. In *The Draytons and the Davanants*, by Mrs. Charles, the life of the time is depicted. Another story, and a remarkable one, of this epoch is entitled *John Inglesant*.

Answers to Search-Questions should be addressed to Editors of WIDE AWAKE, 32 Franklin Street, Boston, Mass., with the words, "Search-Questions," in corner of envelope.

For titles of books to be given as prizes see the January number.

In reply to many inquiries: *We will receive answers to Search-Questions up to the date of the appearance of the printed answers, and will publish the names of senders, and allow prizes for correct complete lists.*

Complete lists of correct answers to the May Search-Questions have been received as follows: Alice M. Guernsey, Hurlbut C. Y. F. R. U. of Framingham, Mass. (F. B. Daniels, Sec.)

A partial list has been received from Frances Sterrett.

In addition to those already credited, correct lists of answers to the Search-Questions in April Readings have been received from Mary L. Clark, C. Y. F. R. U. of Berlin, Mass. (Clara L. Shattuck, Sec.), Effie C. Verney, Frank C. Hyde, Winona Parker, Jessie E. Lane, Emma N. Metcalf, K. Ethelyn Bushnell, Flora A. Metcalf, M. A. Lanman, C. Y. F. R. U. of Albion, Mich. (Mrs. D. Fall, Sec.), Mistletoe C. Y. F. R. U. of Keene, N. H. (Bessie French, Sec.), C. Y. F. R. U. Gleaners of Lynn, Mass. (Dana A. Sanborn,

Sec.), G. E. Bushnell, Edward M. Moore, Louise Rickart, M. Adelaide Love, Star C. Y. F. R. U. of Providence, R. I. (Nellie F. Alexander, Sec.), Emily C. Hall, Winifred Parker, Hurlbut C. Y. F. R. U. of Framingham, Mass. (F. B. Daniels, Sec.), Fred L. Knowles, Martha G. Adams.

Additional partial list of answers to the April Search-Questions have been received as follows: C. Y. F. R. U. of Monona, Iowa (Eloise McEngor, Sec.), Mary J. Drew, Bertha Hempstead, Mary E. Bidwell, C. Y. F. R. U. of Moore's Hill, Ind. (Charles Schabel, Sec.), Alice M. Morgan, Effie M. Thorndike, Frank H. Dixon, May F. Camp, Susie Current, Matilde Weil, C. Y. F. R. U. of Lawrence, Kan. (Whitman Churchill, Sec.), John L. Clarke, Nellie Ward, Lura M. Batchelder, William C. Thompson, Rocket C. Y. F. R. U. of Lebanon, O. (Viola M. Mull, Sec.), C. Y. F. R. U. of Ottawa, Kan. (Alburn Skinner, Sec.), Frances Sterrett, Charles G. Norton, Lakeside C. Y. F. R. U. of Westfield, N. Y. (Alice E. Holt, Sec.), Maud and Ethel Saunders, Mary F. Daren, H. C. Pearson, George Bryant, Ella M. Booth, H. M. Bray, Alice Woodward, Edith L. Johnson, Hattie M. French, Harry Dow, Maude and Grace Wyman, Mary J. Drew.

One member of the Union writes: "I have searched all libraries I have had access to — asked every one I have met that I thought ought to know, besides writing to several papers and college presidents and professors and authors. Of course mamma and other friends are helping me. In the February number I had all the answers but ninety, and would have had that if you had been just *one day* later in sending out the WIDE AWAKE. I enjoy the *adventures* in getting the answers, as well as the satisfaction of knowing them; but the hope of those prize books charms me most of all; and I think you are very kind to give us the opportunity of adding to our list of books as well as knowledge in such a pleasant and profitable way. It does keep up my courage when I find these wise professors and authors cannot answer all of these Search-Questions."

The department, "All the World Round," in charge of Mr. Yan Phou Lee, will hereafter be found in this connection, the crowded state of the Readings proper necessitating the transfer. Members of the C. Y. F. R. U. shall find their inquiries promptly answered. Letters should be addressed to Mr. Yan Phou Lee, Yale College, New Haven, Conn.

ALL THE WORLD ROUND.

"Is Canton the second Chinese city in foreign commerce?" Yes.

Will "Thalia" please read in the November number of the YOUNG FOLKS' JOURNAL or the WIDE AWAKE an article under the above heading.

"Do the Chinese take off their shoes on entering a house?" No; this is a custom of the Japanese rather. For their floors are covered with mats upon which they usually sit and sleep. Chairs, sofas and benches are rare

furniture in Japan. But the Chinese have this furniture in every house, and do not sit upon the floor; accordingly they never think of taking off their shoes or boots on entering a house.

"Do the Chinese begin at the bottom of a book and read upwards?" No; they begin from the top and read downwards, but from right to left which is, after all, the natural thing to do. They seem of course to be reading the back part of the book when really they are reading from the beginning.

"What is the Chinese mode of salutation?" It varies according to the age and rank of the people who are interchanging salutations. The highest reverence and deepest respect are expressed by kneeling three times and each time bowing the head to the ground. This is only given to deities, to the dead, and to the emperor. To superiors, kneeling once, with four bowings, is the rule. Ordinary salutation between equals and friends consists of a hand-shake on the part of each; i. e. each one puts his hands together and moves them up and down, but the further down he leans and the more his hands move, the more is the respect he desires to show.

"What was the Great Wall built for?" It was built for the purpose of checking the incursions of the barbarians who lived to the North of China. These people were a wild, nomadic race, who dwelt in tents and subsisted on plunder. Wherever they went, they carried off everything and destroyed what they could not carry off. You may be sure that China, then a populous, flourishing and wealthy empire, was a great temptation to them. To prevent their coming, the Great Wall was built in 220. It was done in an incredibly short period of time, employing the labor of millions of men. With all its turnings counted, it foots up to one thousand two hundred and fifty miles in length. It consists of a wall of mud faced by masonry which stands on a stone coping. It is thirty feet wide at the base, fifteen feet on top, and from fifteen to thirty feet in height. Towers were built at intervals to the height of fifty feet or under. In the mountainous regions of Northwestern China, the Great Wall is but a low rampart. But it increases in strength and solidity in those regions that are more exposed to attack. It is useless now except as a monument of the mighty past.

"What is known of the very earliest history of China?" Authentic Chinese history commenced about 2000 B. C. Authorities differ as to the exact date. The ages previous to 2000 B. C. are enshrouded in darkness. Even tradition is pretty much dumb concerning them. Subsequent writers of Chinese history have tried to reconcile the earlier period with the later by ascribing reigns of long duration to mythological characters whose existence has not the least foundation. Chinese writers, finding many useful arts in operation in their own day and not knowing their origin, nor having the scientific bent of mind to enable them to track the matter far, took the easiest method in getting out of their difficulties and invented emperors, kings and heroes to whom they could refer all their inventions and discoveries. In this manner prehistoric history has been reared up.

THE WIDE AWAKE POST-OFFICE.

ROME, Italy.

DEAR WIDE AWAKE:

As I am now in Rome, the little readers of WIDE AWAKE may like to hear from me again. We have no garden to play in, but our playground is on top of the house. There is a high wall to keep us from falling off down into the street. From our terrace garden I can see the tiled roofs, the domes of churches against the beautiful blue sky, and hundreds of little birds flying around the tower of the University. We are in the midst of the carnival now. This year the grand procession on the *Corso* consisted of a hundred men on horseback, dressed in ancient costumes, of velvet and satin; gilt coaches with coachmen in red and gilt wearing powdered wigs, and cars from the provinces of Italy. I cannot describe them all, but those I liked best were the Roman car, having in the background broken columns festooned with flowers, and in front peasants in gay Roman costumes, big gilt barrels for wine, and the Wolf with the babies Romulus and Remus. Another was the representation of the Milan Cathedral, with men in red blouses throwing flowers from the roof to the balconies along the *Corso*. The car from Florence was a *loggia* filled with women in Florentine costumes and flowers everywhere, to represent the "City of Flowers." The car sent by Venice was a black gondola with counts and countesses sitting in it, and boatmen standing with cars at each end, just like the picture in "Child Life in Venice" in your January number.

A beautiful white goose reaching up to the third story of the houses, also from Rome, continually opening and shutting its mouth, was drawn up and down the street, with an old man perched on its back. This was in remembrance of the geese that saved Rome from the Gauls by waking the garri-son with their quacking.

On the last night of Carnival there will be a procession of Chinese lanterns and a big paper figure, representing Old Carnival, will be burned in a large square.

I have bought a tambourine and am learning to play it and our old Roman servant is teaching me to dance with it. I am very anxious to see you again, so do come soon.

SUSIE BRAXTON TAYLOR.

HELENA, Ark.

DEAR WIDE AWAKE:

I take a great interest in the Puzzle Department, besides reading the other articles. I have been trying to solve the "Tangles" in all the numbers. Mamma likes to work at them too. She says 'tis very improving. I hope I shall win a prize. There is one above all others I would like to obtain and that is *you*, dear WIDE AWAKE. To give you up now that I know you and love you would be like giving up a dear friend, who never has any but kind and encouraging words to say to me. My sister Lucy, who is nine, two years younger than myself, and I intend to join the C. Y. F. R. U. Papa wishes us to do so. Mamma reads to us every day—histories generally. Sometime ago she read us Mrs. Mark-

ham's *England*. Last year 'twas *History of France* and *Bible History*; then *Ivanhoe* and *David Copperfield*. Now she is delighting us all by reading the *History of Greece* which is like a "Fairy Tale" to us. It is by Miss Yonge. Tell "Quiz" I take music lessons and am very fond of it, but my teacher, who is a German, does not believe in giving songs and pieces. Anyway, I shall beg him to give me "Praising Daisies."

Another answer to Quiz. The last syllable of Esquimaux is pronounced *mos*. Charlevoix says the name is derived from the Algonquin word, Eskimautix, meaning "eaters of raw flesh." Sir John Richardson thinks it of Canadian origin from the phrase *Ceux qui maiux*—"those who mew." The word is unknown to the Esquimaux who call themselves Inuit, "the people." I learned this from the American Cyclopædia. I read the story in June number, 1884, "The Cow with the Golden Horns." The milkmaid, it is said, made her a whole dress of rick-rack. My oldest sister Maud and myself made our little sister Christine one, every stitch rick-rack, and 'tis lovely.

Have I written too much? I have the promise of some subscribers for you, so, dear WIDE AWAKE, good-by.

ETHEL SAUNDERS.

BOSTON, Mass.

DEAR WIDE AWAKE:

I have taken you five years and I like you very much indeed. I liked "Down the Ravine" very much; I think it is about the best continued story I ever read. I like "Crazy Sally" and "Plum Blooms" and a great many other stories very much.

I have a little brother seven years old, and mamma was reading the paper the other day, and she came across this: "A teacher asked a little boy to write a sentence with 'to-ward' in it, and after a considerably long time he produced this: 'I toward my pants;' and mamma asked my little brother to give a sentence and what he gave was, 'the to-ward hopped.'"

JENNIE S.

REDDING RIDGE, Ct.

DEAR WIDE AWAKE:

I have some transfer pictures, but the directions did not come with them. Do you know how to transfer them? Perhaps some of the little readers will send me word through WIDE AWAKE.

NELLIE R. OSBORN.

MARTIN'S CREEK, Pa.

DEAR WIDE AWAKE:

I have taken you going on four years, and like you better every time you come. I am going to make an emery bag. I will tell you how; take an English walnut and crack it in two, then bore two holes in it at each end of the shells, and fasten a ribbon at one end and tie in a bow on the outside

for a hinge; then take two ribbons and put them through the other holes, tying knots in the inside so that it shall not slip through; then make a little velvet cushion to fit the shell and fill it with sand. Then glue it in the shell. When it is not in use you can take the ribbons and tie it together. I also made a pig album. Take some white paper and cut it in square pieces and make a little book of it—as many leaves in it as you want. Then get your friends to draw pigs in it and write their names below with their eyes closed; it is great fun to see how funny they get.

LAURA B. SEEM.

P. S. I forgot to tell you to fasten the back of the pig album with a ribbon.

LITTLETON, Mass.

DEAR WIDE AWAKE:

I have been thinking for some time past that I would let you know how much I enjoy the interesting stories you send to me. The serial stories "Down the Ravine" and "In Leisler's Times" are very attractive, and when you know that Mrs. Champney, the author of the "Bubbling Teapot," once lived in Deerfield, five miles from my old home, I think these who are interested in the same bewitching story would like to hear a little about her summer home. About a quarter of a mile north of the entrance into Deerfield "street," there stands on the left-hand side an old, two-story, brown house with an ample yard on the south side, but scarcely any in front. In this side yard is a group of very tall pines, but in front of the house, and dividing the fence, stands the pride of all the people in and around that vicinity—a *gigantic elm*. This "queen" has stood, no one can tell how long. In a recent gale in the early part of the winter an immense limb was blown off, and the iron bars which had been used to hold the branches together, proved too frail. One can judge of the size of the tree when I state that what was equal to *twelve cords* of wood was cut from *that one limb*. I wish I were able to tell your readers about the interior of the house, but as I cannot remember enough to make it interesting, I think they will have to be contented with a glimpse at the exterior.

In looking over some back numbers of WIDE AWAKE I noticed a letter from A. M. A., Montclair, N. J., in which she asked for information concerning some pieces of music. I am very fond of music myself, and would be very happy to recommend to her the following pieces which I know will give satisfaction: "Will o' the Wisp," by A. Jungmann, also "Midnight Patrol," by the same author, "Westward Ho," by G. D. Wilson, "Moonlight in the Forest," H. Lichner author, "Swedish Wedding March," by A. Soderman, Schubert's "Serenade," and also "Traumerei," by Schumann.

KITTY STAPLES.

CANANDAIGUA, N. Y.

DEAR WIDE AWAKE:

I have several of your readers to thank for their pleasant letters, and I wish I were able to answer them all; but as I am a school-girl, it would be almost impossible.

BESSIE TORREY.

WESTMINSTER, Vt.

DEAR WIDE AWAKE:

A family in Connecticut kept a large number of ducks and geese, and the son, when a boy, had taken much care of them. The son was now a young man and in the Navy, and was soon expected home, and a fine large duck had been fatted especially for his dinner. He came, but only to stay a few hours. His ship had been ordered directly on service again, but he said he would take the duck with him, and their cook would roast him. One morning a few weeks after, the duck was at home again, and after a time, a letter from the son said he had lost his duck. The cook went for him, and he was not there, and could not be found. He had fed the duck every day himself, so as to be sure there should be no mistake about that, but he was gone. He was sorry, for he had depended on a good dinner from that duck. The duck had evidently come quite a distance, and seemed very tired when he got home.

HANS DORCOMB.

286 Commonwealth Ave., BOSTON, Mass.

DEAR WIDE AWAKE:

I think that "Down the Ravine" was just splendid, and I was very anxious to know if anything happened to Birt. I like "A Real Happening" very much too. I saw the letter from Elizabeth Tapley and Helen Harvey, and I should like to correspond with them very much.

Your loving reader,

EDITH SANBORN.

(Kitty's Letter to Her Absent Master.)

To the little boy that used to pull my tail:

I did not like you very much before you went away on the big ship, but after you were gone, I was very lonesome, so I thought I would go off too. So I went to see my mother—but what do you think! that old black cat, my mother, did not know me, or else she was angry because I left her; but you know it was not my fault, for your grandma picked me up and took me home to you. Well, I stayed in the lots and barns, and was almost starved; but I did not want to go home for it was so lonesome without that little boy. But at last I got so hungry that I started for home. I scratched at the door, and said, "Me-ow!" that meant, "let me in." Your grandpa opened the door, and gave me a big saucer of milk; and now I can tell you I don't want to run away again. I lie on your grandma's bed, and sit in her lap, and she gives me lots to eat, and has put a nice new ribbon on my neck—red, white and blue. Now I have nice times and comfort; but, little boy, when you come home, don't you pull my tail, for I have got my claws sharpened, and I shall surely scratch. Your dog, Mister Prim, is very well; but he comes and looks in the window, and makes me feel very nervous; sometimes I do feel as if I should have a fit, but I must guard against that, for your grandpa would take me and hold me under the pump. He don't seem to like me very well, and I have heard that he said he wished I never would come back; but never mind, grandma likes me, so I don't care.

Your faithful cat,

TOPSY.

WIDE AWAKE ADVERTISERS.

Ayer, Dr. J. C. & Co.	19	Gt. China Tea Co.	20	Pyle, Jas.	Cover
Briggs & Co.	1	Gunther, C. F.	1	Potter Drug and Chemical Co.	20, Cover
Birch, J. S. & Co.	20	Gillott, Joseph	21	Publishers' Department	17, 18
Brown, B. F.	1	Gate City Stone Filter Co.	1	Public School Journal Co.	21
Baker, W. & Co.	Cover	Hires, C. E.	1	Procter & Gamble	32
Button's Raven Gloss	19	Herald of Health	21	Rouse, Geo. W.	1
Bird's Custard Powder	21	Howe, Elias	1	Runkel Bros.	Cover
Brown, Frederick	14	Ingalls, J. F.	1	Royal Baking Powder Co.	Cover
Caswell, Massey & Co.	21	Ind. Paint and Roofing Co.	Cover	Reach, A. J. Co.	20
Chaffee, W. G.	1	Knabe Pianos	Cover	Sapolio	Cover
Colgate & Co.	13	Lothrop D. & Co.		Schayer, J. C.	1
Comstock, Vm. T.	20	Lyon & Healy	1	Starkey & Palen, Drs.	18
Ditson, O. & Co.	20	Mellin's Food	1	Spalding, A. G. & Bros.	20
Edmands, C. J.	21	Morse Bros.	1	Tarrant's Aperient	20
Epps & Co. Jas.	Cover	Magazine of American History	24	U. S. Mutual Accident Association	Cover
Evans, W. C.	1	N. E. Conservatory of Music	23	Whiting, F.	1
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A REVOLUTION IN SCHOOL READING.

That a radical change is taking place in respect to the use of *reading books*, is witnessed not only by the utterances on the subject of the most advanced educators, but also by the action of teachers of acknowledged success in their calling, who are *adopting new methods*. The old-fashioned class reading-books, whose matter, conned over and over, carried few or no lessons of value, and awakened little interest on the part of the pupil, are being rapidly superseded by periodical publications, whose matter is fresh, attractive, full of valuable and interesting information, and, coming from the pens of the ablest living authors, presented in the very best literary style.

Among publications especially calculated to meet the new requirements are

LOTHROP'S POPULAR ILLUSTRATED MAGAZINES.

Wide Awake, The Pansy, Chautauqua Young Folks' Journal, Our Little Men and Women, Babyland.

Convincing testimony as to the intrinsic value of these periodicals for such use is found in the fact that prior to any efforts of the publishers to introduce them for school use, they were *voluntarily adopted in many of the best schools* in thirty-five States and Territories. These facts justify the claims that for school reading, no periodical literature is comparable to that offered by

D. LOTHROP & CO., PUBLISHERS, Franklin and Hawley Streets, Boston.

GEORGE MACDONALD'S WORKS.

The four latest works of George MacDonald — "Donal Grant," "Weighed and Wanting," "Warlock o' Glenwarlock," and "Imagination," new editions of which have been issued by D. Lothrop & Co., represent the best and ripest work of the strongest living man in the domain of fiction in English literature. There are others who enjoy greater temporary popularity, perhaps, who by the aid of flashy dialogue and sensational incident attract the superficial reader, but for the qualities which are to stand the test of time, George MacDonald occupies a place far above and apart from them. His work is marked by a virility, a straightforwardness of purpose, a power, which makes itself felt, and which leaves an impression long after the words themselves have been forgotten. Three of these volumes, "Donal Grant," "Weighed and Wanting," and "Warlock o' Glenwarlock" are stories of Scottish life, remarkable for their character-drawing and their keen analysis of the different moods of the human mind. Each has its special purpose beyond that of telling a story, and fulfils it so far as it is possible for a book to take the form of a living deed. Dr. A. P. Peabody, of Cambridge, one of the acutest and soundest of our literary critics, says of MacDonald that "he clenches the heart and soul of his reader with an iron grasp; the interest, strong at the outset, grows with every chapter: the personages brought upon the stage seem, if not our near kindred, at least our next-door neighbors, and we part from them as from old acquaintances — from some of them as from very dear friends. Yet the power thus exerted, though the story is its vehicle, is independent of the story. It is in the man himself, and in the medium through which he beholds the world and its Creator — things seen and unseen. He is preëminently realistic; not in the material, but in the spiritual sense of the word. He looks directly and always into the soul of things, and that soul is to him the imminent God."

The same characteristics which give his novels their peculiar strength and fervor, mark his sermons and religious essays. His literary criticisms have a similar directness and translucency, and the fourth volume of the series now under consideration, "The Imagination," is a model in the way of clearness of thought and happiness of application. It has had a large popularity in England, and the present edition is printed from late London sheets.

The four volumes are bound in handsome library style and are enclosed in a strong pasteboard box.

THE PANSY. This charming and popular magazine, containing both short stories and serials, profusely illustrated, the present volume brighter than ever, adapts itself to Sabbath-school, school and home reading.

HAY FEVER.

Once established, the return of Hay Fever is counted on at a fixed hour of the fated day with the same certainty as the rising of the sun. And until it has run its course the words "endurance" and "patience" have to the sufferers an emphasis of meaning known to no others. Some persons are affected as early as in June, others as late as September. It is, like nasal catarrh, a disturbance of the mucous membrane, and its most appropriate title, perhaps, is "annual catarrh." It has been by some called "rose cold," "hay asthma," etc. Hundreds of our patients who have used "Compound Oxygen" report a removal of unhealthy conditions *predisposing to catarrh and asthma and hay fever*, and several who were at one time acute sufferers from hay fever report that they believe themselves to be entirely cured. The following letters are of especial interest to hay-fever sufferers now looking forward with dread to the coming of their annual visitor. They have here an indication of a pleasant way to avoid the necessity of entertaining so unwelcome a guest.

A gentleman in Greenfield, Mass., wrote to us in regard to his wife. In stating her case he gave the following particulars:

"One year ago last spring she had *rose or hay fever*, which terminated in *asthma*, and was sick in bed most of the winter, with soreness of the chest, cough, and hard breathing. Coughs hard now and raises considerable, and is very thin and feeble. No strength and very little appetite."

The last report was at the end of six months. The following letter gives the patient's condition at the time it was written. Tracing the case along through the reports given, the change in six months was indeed "wonderful."

"To Drs. Starkey & Palen:

"DEAR SIR: — My wife is, she says, well. A wonderful change in six months, from the bed to good health or nearly so, and all from *Compound Oxygen*."

"Has used nothing else. Appetite good, strength and flesh returning; everything looks like sound health again."

"We are grateful. Words cannot express the gratitude we owe you for this great cure."

A lady in Pittsfield, Massachusetts, who had suffered from hay fever and asthma, procured our Oxygen Treatment. After using it as directed, she found herself so much benefited that she ordered a second supply. In writing for this she said:

"I presume you wish to know how I am enjoying myself this hay fever weather. I will give you a list of my doings this week, which will enable you to form an idea of my powers of endurance. Monday morning at seven A. M. left home for a drive of seven miles and a sail on the lake. Returned at two P. M., ate my dinner, and walked from my home to town, a distance of one and a half miles. Made three calls (sufficient to exhaust the most robust) and drove home. Tuesday — did all the ironing (all plain clothes) for our family of six; received two calls, and then drove up street to see a gentleman whom you will see before long, if taking Oxygen has taken effect. I fancy he has bronchial consumption not of long standing."

A physician at Newsom's Depot, Virginia, wrote in October, 1884:

"Having recommended your Compound Oxygen Treatment to my friend, E. M. D., of this place, and also his lady, who had been suffering for several years — himself fifteen years from the most trying and severe attacks every fall from 'HAY FEVER,' his wife from chronic catarrh and bronchitis — both have experienced the greatest benefits, and especially Mr. D., who has entirely escaped his usual fall attacks, although he did not get your Treatment before it set in quite severely; yet in less than two weeks he was entirely relieved; to-day he tells me he is all right and well of it."

"So, having so greatly benefited them, I have determined to try it on two others of my patients at once. I write to-day to get you to send me, per express, a complete outfit marked C. O. D. Send me also some of your treatises, pamphlets, and oblige. Should I again get the benefit I hope for and expect, you will hear from me again, and I shall think myself fortunate in finding so great a remedy among diseases that have always baffled our most skilful physicians."

In confirmation of the Doctor's statement about hay fever, we have a letter from Mr. D., the gentleman referred to, dated October 14th, 1884, in which he says:

"I am much benefited. Have entirely escaped my usual attack of hay fever. Before I received the Compound Oxygen it had set in quite severely, yet in less than two weeks I was entirely relieved, and to-day am all right."

A letter of later date says:

"If you remember, I ordered of you a supply of your Compound Oxygen last August to use for my fever and asthma myself, and for my wife whose right lung was very much affected; in fact, she was given up at one time as having consumption. I think it did me more good than anything I ever used for hay fever, and now the doctor says my wife's lungs are all right; still, she takes it occasionally."

A patient in Oquawka, Illinois, who had suffered very much from hay fever, each fall, for five or six years, beginning the last week in July and lasting through August and September, last year used Compound Oxygen, and the good results attained led to other orders for Home Treatments from some of his acquaintances, though no direct report has been received from the patient himself.

The experience we have had satisfies us that almost every case of it may be cured. But it is of little use to expect that an attack can be stopped if the treatment be delayed until it is fully established.

To be surely successful, treatment should be commenced long enough before the expected invasion of the disease to have taken one full supply of Compound Oxygen — or two months.

Full directions will be given as to the method of use. To any one wishing to learn what Compound Oxygen is; Its Mode of Action and Results, a brochure of one hundred and eighty-eight pages, will be sent free, postpaid on application. Address DRs. STARKEY & PALEN, 1109 and 1111 Girard Street, Philadelphia.

After July 1st, the address will be No. 1529 Arch Street, Philadelphia.



THE CHILDREN OF WESTMINSTER ABBEY.

BY ROSE G. KINGSLEY.

XI.

PRINCESS ANNE, AND HENRY, DUKE OF GLOUCESTER.

IN 1637 a little daughter was born to King Charles the First, at St. James's Palace. Archbishop Laud christened her privately twelve days later; and she was named after her aunt, Anne of Austria, Queen of France.

There were great rejoicings at the baby's birth. The University of Cambridge alone produced more than one hundred and thirty odes, in which she and her sisters, Mary and Elizabeth, were compared to Juno, Minerva, Venus, the Fates, the Graces, the Elder Muses, and many other classic celebrities. In the face of all these protestations of loyal affection no one would imagine that within six years Princess Anne's father would be fighting with his own subjects for his throne and his liberty, and that two of his children would be in the hands of his enemies.

But little Anne was spared these sad experiences. Very soon after her birth she was assigned her place in the royal nursery at Richmond, with her regular suite of attendants, ten in number. From her earliest infancy she was extremely delicate. "A constant feverish cough showed a tendency to disease of the lungs;" and before she was four years old she died of consumption. The short account of her death is most touching:

Being minded by those about her to call upon God even when the pangs of death were upon her; "I am not able," said she, "to say my long prayer" (meaning the Lord's Prayer), "but I will say my short one: *Lighten mine eyes, O Lord, lest I sleep the sleep of death.*" This done the little lamb gave up the ghost.*

She was buried in the tomb of her great-grandmother, the beautiful Mary, Queen of Scots, in the South Aisle of Henry the Seventh's Chapel.

The curious and very rare engraving, which we are fortunately able to reproduce, was published a few months after her death. The little creature, in a close-fitting skull-cap covering her head and fastened under her chin, stands grasping a rose in

her little hands, with a thoughtful expression on her baby face. Based on the spelling of the name of the little Princess, we find the following quaint verse:

Anna is like a circle's endless frame,
For read it forward, backward, 'tis the same.
Eternity is circular and round,
And Anna hath eternal glory found.*

In the same year, 1640, that little Anna found "eternal glory," her brother Henry was born at Oatlands Park in Surrey.

There is a strong resemblance between this young prince, and his uncle Henry, Prince of Wales, with whom we are so well acquainted. Both were grave and studious beyond their years. Both were diligent and active in whatever work came in their way to do. Both were strong Protestants. Both cared for the society and friendship of older and wiser men, rather than that of the gay, luxurious, frivolous young courtiers of their own age. In face and form they must have been somewhat alike. But the circumstances of their lives were strangely different.

Nothing could outwardly have been more happy and successful than the life of Henry, Prince of Wales, the son of a poor Scotch king, raised suddenly to the position of heir to the most prosperous kingdom in Europe. Henry, Duke of Gloucester, on the contrary, was destined to take his share from his earliest childhood in the disasters of his family. Before he was two years old his troubles began. While his father, as an old royalist writer expresses it, "was hunted from place to place like a partridge upon the mountains," his mother was over in Holland, where she gathered together an army with the proceeds of the crown jewels, which she sold or pawned. She landed in England in 1643, fought several battles on her own account, and joined the king in Warwickshire on July 13, sleeping the night before in Shakespeare's house at Stratford-on-Avon, which then belonged to the poet's daughter, Mrs. Hall.

Henry of Oatlands, as the little Duke of Gloucester was called from his birthplace, was left

* "Fuller's Worthies." Vol. II. p. 108.

* "English Princesses." M. A. Greene. p. 395.

meanwhile by his parents at St. James's Palace, with his sister Elizabeth. The Parliament on the outbreak of the Civil War in 1642, secured complete possession of London, and the two children remained in their hands in a sort of honorable captivity.

Little Henry must have been a charming child; and we can well imagine that he was kindly treated by his captors, who appeared to have entertained a notion that a royal child brought up under the stern puritan rule, and separated so early from the evil influences of courts and cavaliers, might be a good ruler for England when he grew up. The boy's natural disposition was all in favor of this possibility.

The little boy did not even know his father by sight; for they had never met since the king left London in 1642. But when Henry was six years old an unexpected opportunity offered itself of learning more about his absent father. Henry's



*The Effigies of the Lady Anna,
who was borne y^e 17th of March 1636,
baptized y^e 30th of y^e same month in the
yeare of our Lord god 1637*

elder brother, the Duke of York, afterwards King James the Second, was taken prisoner at Oxford in 1646. His servants were all dismissed; and he was brought to London to live with the Duke of Gloucester and Princess Elizabeth.

This new society was exceedingly pleasing to the young innocent, who began now to hearken to his brother's discourses with man-like attention imbibing from his lips a new, though natural affection, towards his unknown and distressed father.*

This pleasant companionship between the two brothers lasted for nearly two years. Then the Duke of York escaped from St. James's and went to Holland to join his brother Charles, Prince of Wales, who had fitted out a fleet to attempt to rescue his father. Henry and Elizabeth were again left alone. Princess Elizabeth however kept her little brother constantly informed "of the hourly danger both themselves and their father stood in." Poor little children! Our hearts ache for the eight-year-old boy and the thirteen-year-old girl who were trembling for their own and their father's safety. Their fears for the king were only too well founded.

The extreme party in Parliament had been steadily gaining in strength. And on December 6, 1648, Colonel Pride "purged" the House of Commons of one hundred and forty-three members, who were willing to treat with the king and accept the concessions he offered. On December 18, King Charles was removed from Hurst Castle in the Isle of Wight, where he had been closely imprisoned, and brought to St. James's; and thence he was taken to Windsor Castle.

On January 20, 1649, the king appeared before the High Court of Justice assembled in Westminster Hall. On January 27 judgment of death was pronounced against "Charles Stuart, King of England." Two days later, upon January 29, which

was the day before he dyed, he desired he might see and take his last farewell to his children, which with some regret was granted, and the Lady Elizabeth and the Duke of Gloucester brought to him. The king taking the Duke upon his knee, said "Sweet heart, now will they cut off thy father's head, mark, child, what I say, they will cut off my head, and perhaps make thee a king, but you must not be a king, so long as your brothers Charles and James be living, for they will cut off your brothers' heads (when they can catch them) and cut off thy head too at the last, and therefore I charge you not to be made a King by them." At which words the child smiling said, "I will be torn in pieces first," which falling so unexpectedly from one so young made the king rejoice exceedingly. . . . And after that day he never saw his father's face more.†

Whatever were King Charles's faults, and they were many, he at least knew how to die. The next day after this interview, he came on foot from St. James's to his banqueting room at Whitehall, and laid his head on the block like a gallant and Christian gentleman.

What a strange and tragic memory that meeting must have been for the little Duke of Gloucester. At last he saw his unknown father; and found him a sad, worn man, on the eve of dying a terrible death.

But the child's troubles were not to end here. The next year he and his sister were taken to

* "Life of Henry, Duke of Gloucester." p. 19.

† "Life of Henry, Duke of Gloucester."

Carisbroke Castle in the Isle of Wight, where their father had been confined for so long. And there Elizabeth fell into a consumption and died.

"Now is the little Duke left totally alone, to take comfort only in his solitary meditations,"* says his historian, who indulges in rather violent expressions against the Protectorate. For he goes on to call the Parliament "those monsters at Westminster." The so-called "monsters" were somewhat embarrassed by the possession of the young duke; and at last resolved to send him abroad to complete his education on certain conditions.

Henry was now eleven years old; and the prospect of comparative freedom was very welcome to him. "My father told me" (said he to one about him) "that God would provide for me, which he hath abundantly done, in that he delivereth me as a Lamb out of the paws of the devouring Lyon."†

A tutor was chosen for the Prince; and an allowance of three thousand pounds a year was to be granted him if he fulfilled the following conditions:

I. He was to go to a Protestant School.

II. He was to correspond with the Parliament by letter, and his tutor was to render account of his proficiency and learning.

III. He was not to go near his mother or brothers, or have anything to do with them, "but in all things utterly disown them."

IV. That he should immediately return upon notice from the Parliament given to him for that purpose.

The third condition was one which the boy found it impossible to keep. For the moment he landed in France he went to see his mother and brothers, "takes the blessing of the one and salutes the other, and after a short stay for the future improvement of his learning, he goes to Leyden, and settles there to study."‡

For three years Henry stayed at Leyden, and eagerly profited by the teaching of the wise men who gathered to this famous university from all parts of Europe. "Such was his forwardnesse and zeal to learning, and to attain the arts, that he would steal from his houres of rest to adde to them of his study."§ He was beloved and honored by all who knew him; and was soon pronounced "a most compleat Gentleman, and rarely accomplished." In looks he resembled his father; "his hair of a sad or dark brown, of a middle stature, strong judgment, a deep and reaching understanding, and a most pleasing affable delivery."||

Our prince was no mere pedant. Young as he was, he knew that there is other precious knowledge besides mere book-learning—though that was pleasant to his studious mind. A man who is

to rule men must understand them. He must study men, or he will only be able to govern by theories, which are always dangerous things if they are not backed up by practical knowledge. The duke believed in the great importance of a knowledge of the world and of human nature. Therefore when he was fourteen, after laying the foundation of his learning by hard work at Leyden, he returned to the Court of France, to study men



HENRY, DUKE OF GLOUCESTER.

instead of books for a time, in order to make himself more capable of assisting his brother Charles, if he should come to his father's throne again.

The compact between Henry and the Parliament was completely at an end. Whether he ever received the allowance of three thousand pounds seems doubtful. Fuller declares it never was paid. The lad was therefore free to go where he chose. He travelled a great deal. And in France he always tried to know and imitate the best, "not being caught with novelties, nor infected with customs, nor given to affectation."*

In Paris a sore trial of the boy's strength of principle awaited him. Charles the Second, the king without a kingdom, left Paris in 1654 with the Duke of York, and returned to Flanders where most of his exile was spent, leaving Henry with his mother, Queen Henrietta Maria, in order to pursue his studies. The queen was a strong Roman Catholic; and no sooner had Charles left the French Court than she tried by every means in her power to convert her son Henry to her own church. She first told him that his brothers' for-

* "Life of Henry, Duke of Gloucester."

† Ibid.

‡ "Life of Henry, Duke of Gloucester." p. 26.

§ Ibid.

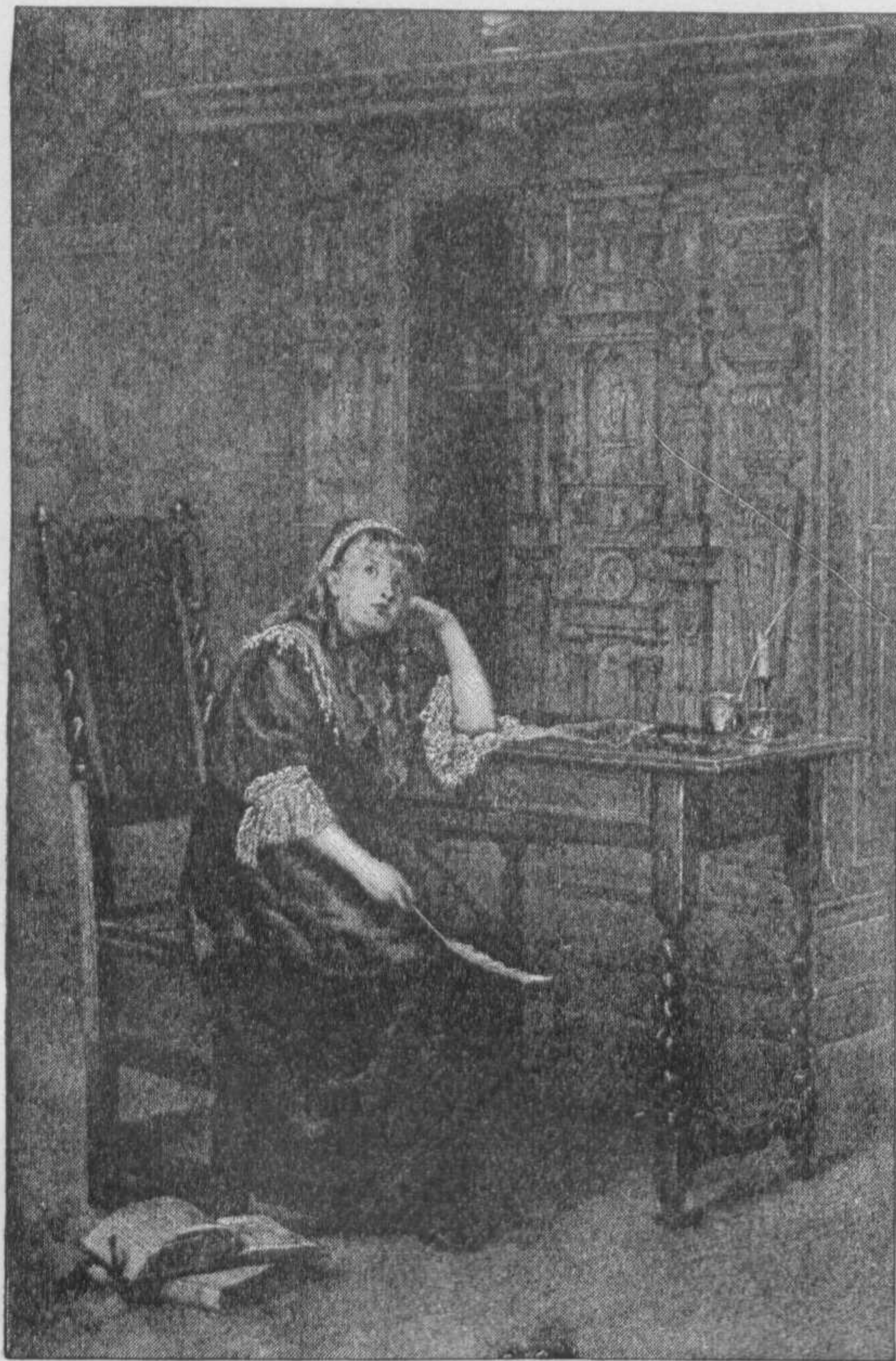
|| Ibid.

* "Life of Henry, Duke of Gloucester." p. 39.

tunes were almost desperate, but that if he would embrace the Romish Faith, the Pope and other European Princes would at once take part in King Charles's cause. Then she said that as the duke had no fortune of his own, and as she could give him none, if he would but abjure his faith the Queen of France would confer rich abbeys and benefices upon him, such as would enable him to live

in that splendour as was suitable to his birth, that in a little time the pope would make him a Cardinal; by which he might be able to do the king, his brother, much service, and contribute to his recovery; whereas without this he must be exposed to great necessity and misery, for that she was not able any longer to give him maintenance.*

But no argument the queen used could shake the resolute boy. He reminded her of the precepts he had received from the king, his father, who had died in the faith of the Anglican Church. He put her in mind of the promise he had lately made to his eldest brother, never to change his



PRINCESS ELIZABETH IN PRISON.

religion. And he besought the queen to press him no further, until he could at least communicate with the king his brother.

* "Somers' Civil Tract." p. 316.

Queen Henrietta knew well enough what Charles's views were on the subject. So finding that her persuasions availed nothing, she dismissed the tutor, and packed Prince Henry off to the Abbey of Pontoise, of which her almoner, Montague, was abbot. Here the duke was entirely separated from every one but Roman Catholics; and a very bad time he had, for every hour some one or other was trying to break down his resolution. Happily for the boy, the king heard of his mother's doings. And in a fury he sent off the Marquis of Ormonde to Paris, who managed the disagreeable negotiation so well that the queen at last said, ungraciously enough, "that the duke might dispose of himself as he pleased, and that she would not concern herself any further, nor see him any more."* Lord Ormonde thereupon hastened to Pontoise, brought the duke away rejoicing at his release, and took him shortly after to join the king in Flanders.

Henry now had some experience of warlike training; for during the next two or three years he and his brothers joined the French against the Spaniards. And when Cromwell's alliance with their French relatives made it impossible for them to keep up any further connection with the French Court, the young men joined Condé in the Spanish camp for a time. The Duke of Gloucester, however, soon tired of soldiering; and went back again to his books and his wise friends at Leyden, where he gained great renown by his retired, studious life, until another change came over the fortunes of his family.

In 1660 Cromwell was dead. England was weary of war and revolution — weary of army rule — and when Charles the Second signed the Declaration of Breda on April 4, the English nation was rejoiced to return to its natural government by King and Parliament. The Duke of Gloucester was at Breda when that famous Declaration was signed. He accompanied his brothers to England, and rode on the king's left hand in his triumphal entry into London on May 29.

Henry now proved that in prosperity, as in adversity, his love of work, the best gift I think that any young lad can possess, was as strong as ever. "He was active, and loved business, was apt to have particular friendships; and had an insinuating temper which was generally very acceptable."† The king was strongly attached to him; and was vexed when he saw that no post was left for this favorite brother; for Monk was General, and the Duke of York in command of the Fleet. However, although Lord Clarendon considered the post was beneath his dignity, Henry begged to be made Lord Treasurer, "for he could not bear an idle life."

Alas! he only enjoyed this prosperous change in his fortune for four short months. "The mirth

* "Somers' Civil Notes."

† "Bishop Burnet's History of his own Time." Vol. I. p. 248.

and entertainments" of the restoration, "raised his blood so high, that he took the smallpox." The ignorant physicians bled him three times, thus effectually taking away his last chance of recovery. And on September 13, 1660, this promising young prince died at Whitehall, the very palace where, eleven years before, his sad, broken father had been executed.

No monument is raised to his memory. But above his grave Mary, Queen of Scots, with her

proud beautiful face in scornful repose, lies under her splendid canopy, a fierce little Scotch lion crowned at her feet. And in the dim mysterious light that comes through the tiny diamond panes of the windows, we read words on her tomb that are indeed true of her great-grandson, Henry, Duke of Gloucester; and as we leave him here at rest we too say:

Bonæ Memorix.
Et spei Æternæ.

SOUVENIRS OF MY TIME.

BY MRS. JESSIE BENTON FREMONT.

XI.

NEW ORLEANS — PANAMA — SAN FRANCISCO.

NEW ORLEANS was, as it called itself in old days, "a little Paris in America." They held fast to every French usage and prejudice; and, as the wealthy planters sent their sons to France and put their daughters in convents for their education, their ideas were so shaped that the younger generation remained as completely foreigners in thought and feeling as their fathers and grandfathers, who never ceased their resentment and regret at having been deprived of their French nationality.

Added to this came much worry regarding their titles to their lands. It is not an honorable chapter in American history that records our dealings with weaker peoples. The Louisiana purchase brought upon its old settlers much of the same bad faith and injustice I have seen imposed upon the original holders of lands in California; notwithstanding the treaty so carefully made to protect them.

My father was the friend as well as the lawyer of many of these French landholders, and when the troubling law-matters brought them to the Supreme Court in Washington they were naturally much at our house where they could find their own language even among us children. One, Monsieur Canonge, insisted my sister and myself should come to a great dinner he gave my father on one of our visits to New Orleans. I was but twelve; but I am always pleased I was let to go, for it remains as the most delicately splendid feast I ever saw, though climate necessarily gave some of its most charming features.

The house was built on three sides around a court of fresh green with fountain and flowers, the fourth side being open to a lovely garden with all its tropical beauty brought to perfection by French gardening of the old stately school.

The first part of the dinner was taken in a noble

room with all the silver and splendors of a great house; but for the dessert we went into another room, large and lofty and opening wide upon the garden, where the moonlight was making fairy effects on the feathery foliage and changed the spray of the fountains to showering diamond dust. The table was covered with flowers, and all its service was crystal and gold; the Venetian glass chandelier, with its many wax lights reflected in the prismatic glass, was so wreathed and hung with flowers as to make a subdued charming light on the table which had on it only fruits and ices and fragrant wines. In a wide circle were young slaves in white, each with a great long-handled fan of peacock's feathers which they waved gently — fanning the air in the same way as the "*punkah-wallahs*" of India. Large mirrors lined the room and repeated this lovely picture of softly brilliant light on flowers and waving peacock plumes, and made an endless vista of the garden and fountains whose fragrant freshness gave both animation and repose.

Among these planters wealth had been inherited and was easily maintained in lavish increase. They had no need to take thought for to-morrow — their future as well as their past seemed equally secure. None saw the handwriting on the wall.

At home in Virginia we had some few peacocks, but the effect of a warm climate gave so much more brilliancy and size to these plumes that my mother spoke of it admiringly; to her dismay, Madame Canonge sent to her the next day several of these great fans; it was dangerous to praise anything, it was sent to you at once.

Every morning one and another sent to my mother such quantities of flowers and fruits that it became embarrassing how to dispose of them.

One family we knew decided it would be for the future good of their sons to be "brought up as Americans;" so they sent them to Baltimore, to the Catholic College there. With them was sent their nurse! — a fine-looking middle-aged French

quadroon who could not understand why boys of ten and twelve could not keep their nurse at a college. She came to us at Washington, weeping and angry, to ask my father's intercession with the Reverend Fathers; for, "How can the children dress themselves? who will do their hair? and their nails?" she said.

Poor souls—they had no idea of the broken fingers and other base-ball damages, or the rough, rough training English and American boys undergo.

Before these boys were half-way through life all this established wealth had vanished—its very foundation gone. No softness or luxury for them now. Yet such boys as these, and thousands more from homes as tender if not so splendid, proved themselves of noble endurance under every trial of war; and now under the bitter ordeal of lost fortunes they are rebuilding the South.

We are too close to the greatest period in our nation's history to take it in just proportion—the details are as yet the most conspicuous.

But it was an epic poem in action, and brought out character as only such rare epochs can; while it leaves us, as one result, the most honorable pride in all our people.

When it became too warm in town for our poor little invalid we would go across Lake Pontchartrain to Madisonville, a summer settlement on the deep, deep narrow Chifuncte river—its dark waters were overhung and darkened still more by the great boughs of the live oaks. Just back of this lay the pine barrens, all loose deep sand so thickly overgrown with tall pine-trees that the sun only flickers through their lofty green heads.

They show you the road cut through these for Jackson's artillery to come up to him for the battle of New Orleans.

Around the houses by the river were beautiful gardens, but the plague of mosquitoes was everywhere—day and night. The bird cages, even the chicken coops, had their mosquito nettings, and children played under portable tents of netting. This was supposed to be a resort for fresh air and reviving breezes from the Gulf; but after such warmed air as that the luxury of luxuries is a real sea wind that you feel blowing through and through you with clean sweet freshness and giving an energy impossible in "dole climate."

How I longed for such life-giving winds when I was detained nearly two months in Panama on my first voyage to California "in '49," for I too was an Argonaut. The steamer which had gone up to San Francisco, the first that entered that harbor, could not return for they could not get a crew; what man would be a fireman on a voyage to the tropics when his two hands could gather gold in that loveliest climate of California? But what was good for the fireman was bad for us; each steamer on the Atlantic side brought its crowd for whom there was no transportation away from this unwholesome

fever-land. Thousands were banked up in Panama watching for "a sail" like shipwrecked people. Any sailing vessel, unfit or fit, was eagerly taken by the waiting men; and badly manned and fitted out they took their risks of the sea rather than bear the ills they were suffering from the deadly climate. My stay there would have been most dreary but for that cordon of personal kindness and mutual help, of which there is so much that it counterbalances the selfish indifference of which there is so much too.

General Herran, the Minister from New Granada, was among our friends in Washington who had great interest in my voyage, which was then truly formidable. His family connection was large and important, and to some living in Panama he gave me letters of introduction; writing to them also of my home in a way that made them take me into theirs, and their family intimacy. One lady, a widow, simply insisted on my coming to her and being one of her children—the "hotel" she said was impossible for me; and a few days of it made me sure one need be blind and deaf to stay there. As the unforeseen delay stretched on from week to week I had increasing reason to be grateful to Madame Arcé for making me part of her home.

How pleased she was that I knew Spanish, and how it pleased my father to read my letters showing how his forethought had equipped me for the battle of life—that terrible ordeal from which no human love can protect the most cherished child.

My Saint Louis and New Orleans ways of living made this Spanish life familiar in many aspects. Here too were the houses built around a court, but larger, and having large gardens where palms and waving feathery-leaved cocoa-nut trees shaded the great tank which made the water supply of each house. There was no living on a ground floor. In hot latitudes health obliges you to live high above the ground, where, lifted high, you had a glorious picture of sea and sky of intense cloudless blue, against which the tropical green of the cocoas and palms and the rich pink of the oleander-trees made a feast of warm color. Their lives needed large houses for they concentrated on home. They only left the house for early mass, for very early, or very late visits among themselves, or a walk on the ramparts in the brief cool moments before the sun went down; in the sudden way of the tropics which makes you appreciate the Ancient Mariner's

Down went the sun,
Up rose the moon,

for sun and moon have no gradual steps at nine degrees above the equator.

But there is "no rush" among the people. "The land of mañana" extends over this Spanish-speaking people also. Among the refined and educated families I knew, this relaxing atmosphere had only made gentleness and a sweet simple courtesy

the habit and rule of life. With children and servants also there was the same softened amiable manner. Narcissa and Candelaria (both colored), one old and gray, the other vivid in her youth, were my special attendants — their trailing velvety voices, their noiseless movements reposed me as did the placid gentle lives of all the ladies around me. With all their soft ways however the duty of head-of-the-family was well carried out; and it was sweet to see the grown sons of Madame Arcé coming to her in consultation on business, kissing her hand when they left, while she, laying a thin hand on the rich black hair, with an upward look to the shrine of the Madonna, had no doubts or questions to mar her practice and faith in a mother's love, and her orphan grandsons as well as her sons gave her the respect and love she so well deserved.

The rainy season came on, and with my homesickness, and the painful news that came to me of the sufferings of Mr. Frémont's party, I became ill, the fever going to the lungs. Now I felt the value and comforting of this tender domestic life. Had I been her daughter, Madame Arcé could not have given me more thorough care. Good old withered Narcissa would mourn over me that I was "so far from my own country" — *ay pobrecita! tan lejo de sus pais* — and be pleased to tears when I enjoyed the refreshing preparations of fruit she made so well. When I was out of danger all the connection showed me their kind feeling. They had made special prayers for me at the Cathedral and one had vowed to supply the hospital with limes for the rainy season if I recovered. How all this touched my home people! Coming back through Panama a year after, I carried their offering to the hospital.

But this was only a rest by the wayside.

Into the quiet of a night there came the signal gun of a steamer. The silence of the town gave way to wild excitement as the imprisoned Americans rushed to the ramparts while the native Indians, always on the alert for excitement, crowded the streets dancing and singing and shouting, "*el Vapor!*" And when another gun announced a second steamer, it was Bedlam let loose. From our high balcony we saw big men crying and embracing one another with excited joy — it was the being taken off a desert island for them. One ship was from around the Horn, the *Panama*, the other, the *California*, had managed to get a crew to bring her down. She had no trouble about willing men to take her up again!

The captain of the *Panama*, and a naval officer of our friends came at once to tell me I was to go up on the *Panama* which could continue her voyage immediately; and so came the parting with these kind friends, but I saw them again whenever I crossed the Isthmus.

If, when looking back to Saint Louis I feel its fresh life, its cheerful movement and ample outlook

in refreshing contrast to the metes and bounds and endeavors to repeat past phases of life of the East, how can I tell all that name, "California," represents. If our East has a life of yesterday, and the West of to-day, then here to-morrow *had* come. It was discounted anyway, and made good too. What a dream of daring young energy — of possibility — of certainties — of burdens dropped and visions realized! A man is half-way through life at thirty-five; then he relaxes and rests, all the more if great success has come to him easily. He may fall back to the need for exertion, but the courage and impetus of great days remain to him.

California has of late been resting from her glorious youth. Now, soberer middle-age has come; but all that made her splendor is there — sure — and giving its returns for steady care.

To me it was the Land of Promise and gladness. Getting to San Francisco in the windy weather of June, a bad cough was added to the hurt to the lungs left by my Panama illness, and I was taken to the softer air of Monterey. I met there a young officer, thin to gauntness, and not considered more likely to live than myself. To that exquisite pine and sea air we each owe new life. As it chanced, we did not meet again until the end of our late war when General Sherman and myself, talking over those Monterey days, thought we had been of some use for people given up as "consumptive."

I had gone up the coast fearing the news I might meet of Mr. Frémont's winter journey overland. Its cruel sufferings when he was midway, I learned at Panama, but kept on my way refusing to give up even in my own mind to the doubts almost every one had of his getting through.

At the first California port, San Diego, we met the news that he *had* arrived and hurried on to San Francisco. I think every man on the ship came to tell me and say a choking word of joy for me.

Then, and through all that voyage, when for the first time in my sheltered life I was alone to meet whatever befell me, I felt the comforting power of that manly friendliness our American men give to any woman meeting the blows of fate; both my names were household words to many and gave then an additional feeling of kindness.

When Mr. Frémont was chosen Senator it sent me back to my old home — so that California brought me health after illness, and wealth and honors. There was my home. There was my future. When the death of my parents left me no divided feelings I no longer looked back; as every woman from Lot's wife through must when parting from home. "The household gods are slow to consecrate a new hearth."

Our war made a break and brought us back to this side of the country, and since then a singular and prolonged injustice on the part of our Government has kept my California home from me.

THE TEMPERANCE TEACHINGS OF SCIENCE.

XI.—THE ACTION OF ALCOHOL UPON THE BRAIN AND NERVOUS SYSTEM (*continued*).

BY PROF. A. B. PALMER, M. D., LL. D.

IN the preceding chapter, the milder acute or immediate stages of alcoholic action were briefly described. In these milder stages, amounting in the highest degree only to what is called "tipsiness," as well as in the more pronounced stages of intoxication, the peculiar action of alcohol on the brain induces *feelings* of strength, of self-importance, and of well-being, which are entirely deceptive. This is demonstrable with the muscular power. The tipsy man boasts of his strength and is ready to use it in contests, but he is more readily defeated than in his natural state; and in lifting at weights, where there are accurate tests, it is found that every degree of alcoholic action upon a healthy system diminishes muscular power.

But the more advanced, or *third* stage, presents a more striking phenomena. In this stage the man is regarded as *intoxicated*, or drunk. The face may now be purplish, or palid, the temperature is reduced, the motions of the heart are usually diminished, often in frequency, but more constantly in force; vascular tension, or the pressure of blood in the arteries, is less; there is marked failure of muscular direction or control, and of muscular power; the gait is unsteady, the tongue is thick, the lips and limbs are more or less paralyzed, there is sometimes double vision; and now there is more marked obscurity and confusion of intellect, and more change of mental feeling. There is generally either an increase of irritability of temper, or a development of foolish sentimentality, with still greater recklessness of conduct, a loss of a sense of propriety, and often a disregard of the rights of others; and now pugnacity, brutality, violence and criminality are apt to appear.

When not too advanced, this is the stage of brawls and fights, of shooting and stabbing in saloons and in the streets, of beating of wife and children at home, of profanity and obscenity everywhere, and of all the horrors so familiar to the frequenters at public places, the visitors at the homes of drunkards, and the readers of the daily papers. This stage may terminate in an unnatural sleep, with restless mutterings, semi-convulsions, or more quiet narcotism.

In the *fourth* stage, or that of dead drunkenness, there is the full development of alcoholic narcotism. The anæsthetic phenomena, or those of insensibility, such as appear under the influence of chloroform or ether, are present. There are muscular palsies, irregular and stertorous breathing; feeble,

often intermitting, heart action, great fall of temperature, with utter insensibility and unconsciousness; and the next step is death. Death is more likely to occur when the same degree of narcotism is produced from alcohol than from chloroform or ether, because of its longer continuance. The alcohol necessary for these effects is larger in amount and slower in leaving the system than the chloroform or ether. The awakening from the obliviousness of the more advanced degrees of drunkenness, whatever may be the sensations and visions in falling into it, is a painful reality. Confusion, depression, and distress; and, before the drunkenness becomes habitual, remorse and shame are keenly felt in all but the lowest natures. For hours, and often for days after, there is pain in the head, often sickness of the stomach, the tongue is coated, the hands tremble, there is frequently feverishness; and languor and inefficiency continue for a longer time.

With some, in these fits of intoxication, violent and repeated convulsions occur; and with some others there is active delirium—*crazy drunkenness*—but such cases are not common. It is a curious and most unfortunate fact, that however painful these results, however strong the motive and firm the resolve not to repeat the debauch, there is in many cases an imperative impulse to indulge again in the same manner, especially if any, even the least, intoxicant is taken; and in spite of a knowledge of consequences and the remonstrance and persuasion of family and friends, the terrible practice becomes habitual.

The strong resemblance between the narcosis of alcohol and that of chloroform or ether is apparent; but that of alcohol is much more likely to become habitual. The essential character of the condition is so similar that the same terms may be applied to each. If chloroform is a narcotic, so is alcohol; if one is a depressing, lethal agent, so is the other. If chloroform is a poison, so is alcohol. The greatest difference in their immediate action is, that the chloroform is more speedy in its effects and sooner over; and its secondary consequences are less severe.

But in studying the effects of alcohol on the brain and nervous system, we must go beyond the speedy action of a single or a few doses, and consider the more important, because the more permanent, effects of its continued use. These effects are varied by the quantity used, the length of time it is continued, and by the temperament and power of endurance of the drinker.

In its habitual use, *four* stages of alcoholic change are recognized, corresponding in many respects with the four acute stages that have been described.

There is a mild *first* stage where only small quantities are used, as where an occasional glass of light wine or beer is taken with the meals, and where such limits are not exceeded. In this the condition of the brain and nerves is but little changed from the physiological or natural state.

There is a *second* stage where a change from the normal state is more perceptible—where the force and regularity of brain and nerve action is impaired, but not in an extreme degree; but where the tone of the intellectual, and particularly of the moral character, is lowered, but yet where the subject of it is not regarded as a drunkard.

There is a *third* stage where there is unquestionable intemperance or inebriety—where the subject is called a “hard drinker” or “drunkard” according to the degree of indulgence; and there is still a more advanced or *fourth* stage, where the victim is a complete sot, given up to continued and extreme indulgence, whenever the means are within his reach, where there is the greatest debasement, physical, mental, and moral, where there is advanced alcoholism or alcoholic disease, where the wretched victim is tottering on the verge of destruction, unfit for any useful occupation or respectable association, a disgrace to himself and friends, and a nuisance to all about him. These stages shade off into each other with no abrupt line of demarkation, but are different degrees of the one general process of abnormal change. The first two milder stages will require more discussion, as respecting them there are the chief differences of opinion; but this discussion will not be entered upon until a fuller account has been given of the more advanced stages.

All are ready to admit the very great, the almost inexpressible, evils to the brain and nerves of individuals, to the happiness of families, to the interests of communities and the country, of the third and fourth stages of habitual alcoholic indulgence. The changes of the brain usually discoverable in its structure, but which more certainly exist in its functions—in its actions and tendencies—are most profound; and are all in the direction of physical, mental, and moral degradation.

The structure of the brain is changed in various ways from its normal state. It is sometimes hardened from the increase of its connective tissue, and sometimes softened from a form of fatty change; and in both cases the proper brain cells—the seat of cerebral action—of physical and mental power—are more or less diminished in number, altered in structure, and impaired in activity. The vessels are often found degenerated, and are liable to great distention and rupture, constituting congestion and apoplexy. The membranes of the brain are often found inflamed and

thickened, their transparency and pliability impaired—and, in short, the whole organ is degenerated, enfeebled and perverted.

Under the immediate effect of the liquor, the drunkard is regardless of his duties and obligations to himself, his family, and to society. He is inefficient, improvident, unthrifty, unreliable; often violent, dangerous, and criminal. When deprived of his accustomed dram, he is morose, despondent and often unendurably wretched, with a craving for the liquor, which in the perverted state of his brain is irresistible. His depression and despair sometimes lead to suicide, preceded, it may be, by the murder of his family, with the motive of relieving himself and them from their living death. Mingled with this despair are often fits of fury which the drink excites; and his causeless and unreasoning vengeance may be inflicted indiscriminately on himself, his family, his friends, or strangers, as well as on imagined or real foes. In many cases nothing is too absurd or too depraved for him to do, and no suffering is too severe for him to endure.

The drink which for a time relieved his agony, at length fails to do so unless carried to the extent of stupefaction and approaching unconsciousness. This quantity is therefore taken, and this increasing indulgence, if it does not induce sooner some fatal form of disease, brings him to the fourth and extreme stage of habitual drunkenness, which, though it sometimes is endured for a considerable period, usually soon results in death.

Besides rendering other diseases and accidents much more severe and fatal, this excessive drinking produces several particular diseases of the brain and nervous system.

The one best known to persons not of the medical profession, because of the striking character of the symptoms, is Delirium Tremens. In this terrible disease the brain becomes so affected by the alcoholic poison that all its functions, physical and mental, are performed in the most irregular and fearfully perverted manner. There is usually a premonitory stage in which the patient is restless, wakeful, and apprehensive of some violence, misfortune, or calamity. When attempting to sleep he is awakened with frightful dreams which are so vivid as to appear to be realities for a time after awaking. These and other symptoms may cause the patient to stop his drink, but too late to prevent its effects. In other cases, quite as numerous, the premonitory symptoms are less regarded, and the full development of the disease comes on in the midst of gross indulgence in drink; but the phenomena in either case are similar. The face now becomes paler, the surface is covered with a profuse sweat, there is trembling in every muscle, the patient looks wildly about him, seeing in his delusions frightful objects in every quarter; and though his pulse is weak and fluttering and his whole appearance indicates great debility, he still

moves about restlessly, and often actively, and he frequently exerts himself violently to escape from imaginary enemies. His whole mental functions are perverted even more than his bodily ones. The most characteristic mental condition is *fear*, which is always present. His ever-present hallucinations, or morbid imaginings of sight, sound, and feeling are of a frightful character. He thinks he is pursued by "a man with a hot poker," that "snakes are in his boots," that disgusting bugs are crawling over him, that great bats are flapping their skinny wings in his face, that vampires are sucking his blood, or that demons are about to seize him; and he cries out and struggles in mortal agony. He may make a fatal leap from a high window, or, escaping from his room, may run half-naked through the streets. No condition of horrors or mental suffering can exceed this state. The ancient ideas of Gorgons and Furies must have been derived from experiencing or witnessing this disease, which occasionally occurred among the wine-bibbers of the time.

In this disease, left to itself, sleep and rest are banished, and death by exhaustion is likely to occur in from a few days to a week. Many cases, however, under proper management recover from a first, and some from a second or third attack. It would seem from such a warning that the first attack would be the last—that the cause would be avoided. But the desire to return to drinking is so great, the force of habit so strong, the self-control through brain impairment so feeble, that indulgence again occurs, and subsequent attacks gener-

ally follow. With each recurrence of the disease the chances of recovery diminish, until death closes the earthly scene. Subsequent attacks of this particular disease may not occur, death following from other forms of alcoholism, or from complications of other diseases; but when the brain is so far impaired as to produce delirium tremens, permanent reform is almost hopeless, and the victim is almost sure to die a drunkard.

Death to our natural instincts is a fearful thing, come in what form it may; fearful when amid friends, and family, and loving care; made less appalling by affection earned by years of self-control, of duty done, of virtue, kindness and love. It is a terror even when life passes away with these surroundings, in resignation and hope, and ceases as gently as music from a slumbering harp-string. What then must be this dread event to him, who drives from his death chamber, or perhaps his gloomy cell, by his raving violence or his profane mutterings, his family and kin, who may have but the tattered remnants of abused affection, while he puffs out his last foul breath, a token of the corruption within, and nothing remains but an inheritance of painful memories, and, possibly, of propensities which may lead his offspring to repeat his career.

Can it be possible that an article which so often produces the effects upon the brain and nervous system which have been sketched in mere outline, is, as a beverage, even necessary, useful or safe; or indeed entirely innocent, habitually used in any quantity however moderate?

THE MAKING OF PICTURES.

BY SARAH W. WHITMAN.

XI.

SPECIAL PROCESSES.

WITH the last chapter we reached the end of the long list of methods and processes which are in general use for the making of pictures. Not that, absolutely, every separate mode was described, but in the examples and illustrations given they were virtually all included; and you may now be said to have made a rapid survey of the whole field of the Fine Arts and the Reproductive Arts, so far as their relation to pictures is concerned.

The only thing that remains to be spoken of is that little corner of Art-work, in which here and there an artist seeks to express his ideas by some process hitherto unknown. This may be done for

two reasons; either because under stress of circumstances there may be none of the ordinary means of expression at hand, or because of strong individual taste or feeling, he may invent a method which shall seem to him especially fit to convey the thought which he has in mind. The first of these reasons has often accounted for early work done by men who felt the pressure of the Art-impulse within them, long before they could obtain any knowledge of the processes of Art. The roughest of tools and the rawest of materials were availed of for work which was done under the necessity for showing in tangible form what was felt; and it may be that pictures done in this way would have often the charm of picturesque or vivid statement of real feeling—a thing which appeals always to human interest.

For it must be remembered, that processes as such have no value; it is only as they supply fit and adequate means for the complete expression of the artist's conception, that they are of worth. Thus it sometimes happens that, as in speaking a gesture will take the place of words—will indeed say more than any words could say—so a really great artistic idea may be made visible by some rude symbol. But what is done under the pressure of circumstance in one way, will be done in quite another way when well-appointed means allow. And it is to be noted that the truly great artists have always been the most eager to obtain academic training, and have won their laurels, not by the invention of new processes, but by achieving new and greater results while using traditional means. In Art, as in everything else that is worth doing, there is no royal road to success, but those who happily arrive at the goal will have made their way there through the highway of knowledge, wherein is found all that has been known before; the result that is of experience, without which one is poor instead of rich.

But apart from all this come, as was said above, occasional expressions of individual feeling in a peculiar process—with a result which is interesting because it is curious or unique, rather than because it possesses permanent artistic value. Perhaps the most notable, as well as the most difficult of these processes, in modern days, is that of drawing on wood with a hot iron (otherwise known as "poker-pictures"). The lines are burnt upon the wood, and produce the effect when varnished, of a painting in glazed oils, such as bitumen or mummy—the color of the burnt line being a rich brown upon the soft creamy tone of the wood. The late Mr. Ball Hughes made many pictures in this manner, producing varied effects by the skilful use of his iron rod.

A very charming process has recently been used—especially by Mr. C. A. Walker, and carried by him to a high degree of perfection—called the Monotype process. This consists in painting upon a metal plate in transparent color, such as asphalt; and as with a brush one can work very freely and rapidly in the flowing color upon the hard surface, one may in this way obtain quick sketches from nature. In fact in working thus one uses not only a brush, but one's fingers, a stick, whatever can be of service to produce a vigorous transcript. Then with the plate thus prepared one finds unexpectedly that it can be made to serve the purposes of printing; for before the asphalt has a chance to dry, it may be put in a press, just as if it were an inked etching-plate, and the paint, which takes the place of the ink, will be transferred to the paper. The impression thus made will not be quite like anything else; but resembles a very rich sepia drawing, with some of the qualities of a woodcut also.

The name of this process comes from the fact that of course each plate makes but a single print; as all the asphalt on the paper is transferred, in the first impression, to the paper. This method may be regarded, in brief, as a very free and rapid way of making a drawing on a surface which being hard is not injured as paper would be by scraping out or rubbing off, at the same time that we may obtain great variety and great delicacy of drawing. Most artists find it valuable to become slightly acquainted with all these modes of work; and most artists also have special ways of their own of occasionally making pictures, which would be interesting to study if there were more time.

Our subject does not technically include our large and beautiful department of Art-work—that of Decoration. Yet before our talks end, I wish to say a few words regarding this subject, for it is one which deeply concerns us and our most immediate surroundings.

Broadly speaking, decoration consists in all those forms of ornament which are applied to the inside and outside of buildings, and to articles of use and beauty. A picture—using this term to describe an ideal work of Art—being a thing in itself, could not be painted as decoration only; for decoration is an adaptation of beautiful forms to certain conditions of dimension or of utility; and in order to give the quality to the work, which this limitation involves, decoration always has an element in it of what is called *conventionality*. Now this element is not quite easy to define; yet since all really good decoration demands the knowledge and use of convention, it is worth giving some pains to its right understanding. Conventionality means much the same thing in Art that it does in other directions; so far, that is, as its principles are concerned, requiring the subordination of one thing to another for the sake of the whole. For example, in military affairs, when a man becomes a soldier, then certain matters of discipline are found to be necessary. *Restraint* and *conformity* are essential, in order that the army, of which each soldier is a part, may be efficient. A soldier, for the sake of illustration, might be called a conventional expression of a man; and in order to accomplish this it is necessary that he relinquish the freedom of his action in many ways, and live under the restrictions of military discipline. He wears a uniform; he moves his legs and arms in a prescribed way, he eats and sleeps by rule—in short he conforms himself to military life.

Thus also it is, though with a different application of the principle, in Conventional Art. When an artist wishes to do decorative work, he goes to the world of nature to find the primary forms of beauty—plant and flower and tree forms, or forms of animal or human life. But if he would avail himself of these what must he do? Shall he imitate flowers and leaves exactly, for the purpose of

decoration? No; because if they are to occupy the relation of a part to a whole, the native freedom of those forms is unadapted to the restrictions of the new conditions. There would be a manifest want of fitness in putting the actual flowers in such a place. We must therefore restrain the natural forms in the design and make them conform to the main idea of which they are now to form a part.

But just as the man in becoming a soldier does not cease to be a man, so in adapting the forms of nature to decorative purposes, the artist must *follow the laws* of those forms, and be guided in the use of them by their principal attributes. To make a conventional lily, one must, at all events, represent the stem as long and slender; the petals long and curving, the leaves pointed; while at the same time, the flower might be more symmetrical, the arrangement more monotonous, than in nature; repeating itself for instance at regular intervals, instead of growing with the confusion and irregularity of the garden. That is, the use of the lily-forms must be according to the new conditions.

There are many ways of introducing the conventional element into decoration; methods by which what might be called an abstract expression of

nature may be made. It may be as in Japanese decoration which is largely expressed by the omission of modelling, everything being done in a flat surface, or perhaps without light and shade — and in other modes too various or too subtle to be described here. But I trust that enough has been said to give you the clue to a subject which is as interesting as it is important. To-day in our own country we are surrounded in all directions by much bad ornament. This is mainly to be accounted for by a want of knowledge which has prevented the use of good conventional forms; and a want of sentiment which has allowed machinery to attempt what only the human hand, as expressing the human love of beauty, could produce. But this state of things improves steadily, as the principles of Art get their true place in the appreciation of thoughtful people. And the fundamental thing in decoration is, as in everything else which has a real place in the world of nature or of Art, that it should *mean something*, and make that meaning apparent. Before this standard what would become of those tangled nonentities, those elaborate jumbles which now alas! are perpetrated in the much-abused name of Decorative Art?

BOYS' HEROES.

BY EDWARD E. HALE.

XI.

NAPOLEON THE FIRST.

IT was with some hesitation that we placed Napoleon Bonaparte, the first emperor of that name, on our list of heroes. To tell the truth, I do not think he will be on such a list — a list of boys' heroes — in the *WIDE AWAKE* magazine of the year 1985. Now a hero who is not permanently or always a hero, is only a hero of the second class.

I think if any intelligent person had made a list of boys' heroes in the year 1760, it would certainly have included Frederic of Prussia — if the list had been made for American boys or English boys. He was a very successful soldier. He had been a very successful administrator. He had made a small kingdom into a very powerful one. Any young man who could, sought to obtain some post in his army. The young men, of whose private lives I know anything, in America at that time, eagerly studied what they could find of his writing and of Frederic's life.

But I am equally certain that he would be put on no list of boys' heroes now. Mr. Carlyle has

put him on his list of heroes — by which he means persons who by their power of accomplishment, have lifted their heads above the current of their time. But Mr. Carlyle cannot make people believe that Frederic has a place in the lasting regard of men. I do not myself think that Frederic has left anything very important as his gift to the world. It has been said that his best gift to Germany was the introduction of the potato — and I think that would have come in without him.

Now I suppose that the fame of Napoleon the First is declining with every year, as that of Frederic the Great has declined. Napoleon was a very skilful person in the very important business of fighting. He could live with very little sleep. He had a very hard heart. He cared for nobody but himself. He understood the business of war wonderfully well. By instinct, almost, he brought to act on one point the largest possible number of men, and almost always crushed his enemy in doing so. When a nation is at war these are great gifts. And, by such means, Napoleon made himself Emperor of France, and kept himself in that position for eleven years.

But these are not gifts which through all ages

command the regard and admiration of men. Other men appear who have the same gifts. The circumstances go by which made those gifts of value. Thus it would be very hard for me to persuade any boy or girl that it is important now to any one, that Napoleon succeeded in the battle of Borodino in the year 1812. But, in the battle of Borodino seventy or eighty thousand men were killed or wounded—and he can only be justified in compelling such loss of life by some great exigency. If the objects of a man's life are transitory, and the methods by which he gained them are transitory, I think his fame will not be eternal.

Napoleon Bonaparte was born on August 15, 1769. It seems to me a little curious that the celebration of the hundredth anniversary of his birth was not more distinguished than anything I remember. It has been observed with interest that Arthur Wellesley, afterwards Duke of Wellington, who met Napoleon in battle at Waterloo, was born in the same year. He was three months and fifteen days older than Napoleon.

Napoleon, in early life, always spelt his name Buonaparte—with a *u* in the first syllable. He changed the spelling to Bonaparte without a *u*, all of a sudden. It is said that up to a certain day all the autographs have the letter *u*, that on that day there is one letter with it, and another without it, and that always afterwards he wrote it with *o* alone. I suppose that after he became a French ruler he did not care to use spelling which is distinctly Italian. He was born in Corsica, which was ceded to the crown of France in June, 1768. He was therefore born a subject of Louis the Sixteenth. Had he been born sixteen months before he would have been born a citizen of the Republic of Genoa, which held Corsica till its cession to France.

His father was a well-educated man, who was of the patriot party, as it was called, of Paoli, a person a good deal heard of in those days. It was afterwards Napoleon's duty when he was only a captain of artillery to serve against Paoli. When he was a little boy, only ten years old, he was sent to the military school at Brienne, and here he remained what was called a "king's pensioner" until he was in his sixteenth year. Observe that when he was a schoolboy in this school the boys heard of Lafayette's and Rochambeau's successes, with French troops in America.

Here is his own account of his boyhood:

In my infancy I was extremely headstrong; nothing overawed me, nothing disconcerted me. I was quarrelsome, mischievous; I was afraid of nobody; I beat one, I scratched another; I made myself formidable to the whole family. My brother Joseph was the one with whom I was oftenest embroiled; he was beaten, bitten, abused; I went to complain before he had time to recover from his confusion. I had need to be on the alert; our mother would have repressed my warlike humor, she would not have put up with my caprices. Her tenderness was joined with severity; she punished, rewarded, all alike; the good, the bad, nothing

escaped her. My father, a man of sense, but too fond of pleasure to pay much attention to our infancy, sometimes attempted to excuse our faults. "Let them alone," she said, "it is not your business. It is I who must look after them."

Here is his account of his first journey:

I still remember the tears she shed when I quitted Corsica. That is now forty years ago. You were not then born: I was young, and did not foresee the glory that awaited me, still less that we should find ourselves here together*; but destiny is unchangeable: one must obey one's star. Mine was to run through the extremes of life; and I set out to fulfil the task assigned me. My father repaired to Versailles, whither he had been deputed by the Corsican *noblesse*. I accompanied him; we passed through Tuscany—I saw Florence and the Grand Duke. We at length reached Paris—we had been recommended to the Queen. My father was well received, feasted. I entered the school at Brienne; I was delighted. My head began to ferment; I wanted to learn, to know, to distinguish myself—I devoured the books that came in my way. Presently there was no talk in the school except about me. I was admired by some, envied by others; I felt conscious of my strength and enjoyed my superiority.

It was, of course, curious in after times, to see what his teacher thought of him. The following report was discovered, and made public:

State of the king's scholars eligible from their age to enter into the service or to pass to the school at Paris; to wit M. de Buonaparte (Napoleon), born the 15th of August, 1769, in height 4 feet, 10 inches, 10 lines (5 feet 6 1-2 inches English) has finished his fourth season; of a good constitution, health excellent; character mild, honest, and grateful; conduct exemplary; has always distinguished himself by his application to the mathematics; understands history and geography tolerably well; is indifferently skilled in merely ornamental studies, or in Latin, in which he has only finished his fourth course; would make an excellent sailor; deserves to be passed on to the school at Paris.

His old master Leguille, professor of history at Paris, boasted, that in a list of the different scholars, he had predicted his pupil's subsequent career. In fact, to the name of Buonaparte the following note is added: "A Corsican by birth and character—he will do something great, if circumstances favor him." Monge was his instructor in geometry, who also entertained a high opinion of him.

M. Bauer, his German master, was the only one who saw nothing in him, and was surprised at being told he was undergoing his examination for the artillery.

Napoleon received his first commission in the French army when he was only sixteen years old. He was then appointed a second lieutenant of artillery. Observe that Lafayette was commissioned at the same age. Napoleon, you see, served under the Monarchy—when Louis the Sixteenth was still one of the most popular of kings. Not long after he was commissioned, he competed for a prize offered by the Academy of Lyons, and he won it. The subject was one prepared by the Abbé Raynal: "What are the principles and institutions, by application of which mankind can be raised to the highest pitch of happiness." Few men have had

* At St. Helena.

such a chance to try experiments in that direction as he had in his after-life.

The conflict between the King and the People was steadily approaching. It is said that he said, in the discussions among the officers of his regiment, "Were I a general officer I would have held by the king: being a subaltern I join the Patriots." All such stories, however, are to be cautiously received. It is certain that he did take the Patriot side. In 1792, when he was twenty-three, he became a captain; it was in the next year that he served in Corsica. The French were not successful there, the army was withdrawn, and his mother, his brother and sisters crossed to Marseilles. It is said that they were quite poor until Napoleon was far enough advanced in his career to relieve them.

In the south of France, there had been more than one district where the people, or their local leaders, had not supported with enthusiasm the violent proceedings of the Revolutionary Convention, and had looked with particular horror on the imprisonment of the king. The seaport of Toulon, which was a Royal arsenal, had declared for the King and the Constitution of 1789, and had asked the assistance of the English and Spanish Squadrons which were cruising on the coast. This assistance was given; and a garrison made up of Englishmen, Spaniards, Neapolitans and Sardinians was thrown hastily into the city, which thus became — though a French city — a hostile town in France. The Convention had to besiege it and to take it.

The Convention, at the outset, managed its military affairs very badly, having the wretched custom of sending what was called a Committee of Public Safety to watch and overawe the General. Lord Mulgrave, an Englishman, held command of the motley garrison within. Things dragged along, with little success for the French for some time, when Napoleon Buonaparte, who was then only a lieutenant-colonel of artillery, was appointed commander of the artillery in the siege. So soon as he arrived, he found that things were wretchedly

mismanaged. More than once he had to differ from the civilians who were sent down to watch him and the siege. In a sally which the English made against a French outwork, Napoleon received a bayonet wound; and O'Hara, the English commander, was wounded and taken prisoner. This is the same O'Hara who gave up his sword to Washington at Yorktown, when Lord Cornwallis was too ill in his tent to make this sign of surrender. Immediately after this success, Napoleon opened a heavy fire on a post which the English called Fort Mulgrave and the French Little Gibraltar. He weakened it so that a French column was able to take it by storm. After this severe loss the allied troops withdrew.

The notes which the committees of Paris found in the office of the artillery department, respecting Napoleon, first called their attention to his conduct at the siege of Toulon. They saw that, in spite of his youth and the inferiority of his rank, as soon as he appeared there, he was master. This was the natural effect of the ascendancy of knowledge, activity, and energy, over ignorance and confusion. He was, in fact, the conqueror of Toulon, and yet he is scarcely named in the official dispatches.

Still, after such success, it was a year or two before his military genius had any fair chance given to it. It was not till the famous day which Carlyle calls the day of the "Whiff of Grape Shot," that he established himself as one of the great Leaders of the French people. On that day, October 4, 1795, he was but twenty-six years old. From that time for twenty years he was the most important man who was in any way connected with France or her government.

I have only tried to give a sketch of his life while he was a young man. You will all see that in those days he showed most of the characteristics which gave him distinction afterwards. I think he also showed the limitations, which make it certain that he can never be counted among the number who are acknowledged to be the first of men.

ENTERTAINMENTS IN CHEMISTRY.

BY HARRY W. TYLER.

VIII.

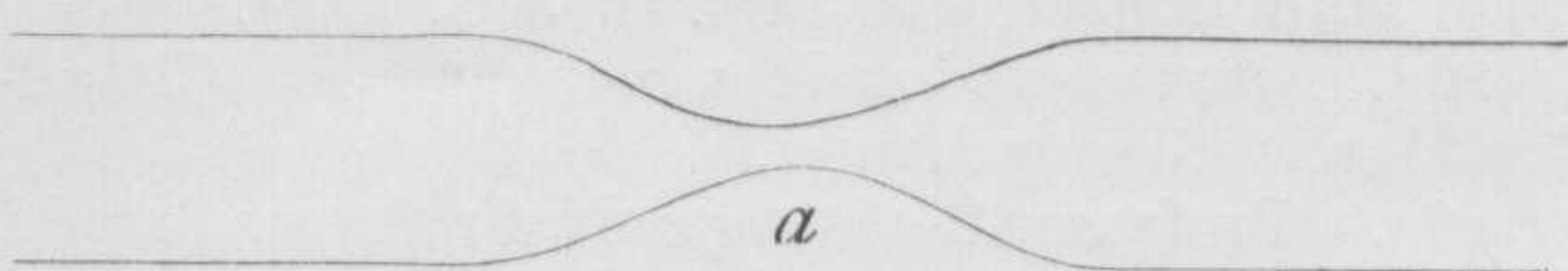
HYDROGEN.

THIS gas, already mentioned, is an interesting and important element, in both theoretical and experimental chemistry. Direct study of it has been deferred, as its preparation is less simple than our previous work.

We shall need, for apparatus, a wide-necked bottle with a good cork, a foot of one eighth inch glass-tubing, and a glass "thistle-tube"; in default of this glass, use a common clay pipe. The chemicals necessary are some scraps of sheet zinc, a little hydrochloric ("muriatic") acid, and water.

Bore through the cork with a round file or red-hot wire, two smooth holes as nearly vertical as possible, and just large enough to admit the glass

or clay tube. Through one of these, push the thistle-tube or a whole pipe, so that when the cork is in place, the tube may reach nearly to the bottom of the bottle. Through the other hole pass a tube for the exit of gas; this should project little if any below the cork, and the exit must be quite small — say one thirty-second of an inch in diameter; hence if we use glass-tubing it must be drawn out to a fine jet. To do this, hold a piece of tubing by the ends, so that about half an inch is in the upper part of an ordinary gas, kerosene, or alcohol flame. Rotate it continually, without twisting, so that it may be heated evenly. When red-hot, remove from the flames, then slowly draw the ends apart. The tube should have this form, which you



will be able to obtain after a few trials. Scratch it carefully at *a* with a triangular file, then break off with the fingers, and round the rough edge by softening in the flame. In pushing a glass tube through the cork, be very careful not to push sideways, or the tube may break and cut the hand.

Now place six or eight scraps of zinc in the bottle, and add water to the depth of an inch and a half. Put the cork in place, as shown in the figure, making sure that the joints are tight; the long tube should just dip into the water. Incline the bottle so that a little acid may be poured in through the long tube. Add two or three portions thus, and observe the result: The pieces of zinc are coated with tiny bubbles, which collect and rise through the liquid in abundance. If the action be rapid, the mixture becomes opaque and almost milky-white. Soon the bottle feels warm, the heat increases until it is painful to the hand. What becomes of the bubbling gas? It must escape through the short tube, as we may readily assure ourselves by sound or smell — the latter being due to impurities.

The chemical action in our bottle is, briefly, this: hydrochloric acid is a compound of hydrogen and another gas, chlorine, dissolved in water. Zinc has a very strong "affinity" for chlorine, hence the latter leaves its hydrogen, which then makes its escape. Two atoms of chlorine and one of zinc form a molecule of a white compound, zinc chloride, which remains dissolved in the water, and may be separated on evaporation.

If the action in the bottle slackens, gradually add more acid; and after the gas has escaped briskly for *at least five minutes*, cautiously apply a light to the jet. The gas takes fire, burning with a small flame, which properly is a pale blue, but may be colored otherwise by impurities. We have

now a gas-lamp which will burn for a considerable time, if supplied with acid.

Sometimes, however, the flame is irregular and is extinguished by drops of water spirted up from below. Observing the flame, we find that while it gives little light and no smoke, it is intensely hot. A fine wire held in it glows brightly, and many of the metals may be thus melted. Thus we can change a portion of the heat into light; and this confirms what we have already learned, that light requires not only heat, but also solid particles to be heated.

But what becomes of the hydrogen — since nothing is ever really destroyed by burning? Hold a cold lamp-chimney around the flame, or a piece of looking-glass above it. The glass is quickly covered with a light dew, which is gradually driven off by the heat. But the moisture may be collected, and it is then found that the combustion produces nothing but pure water.

The nitrogen of the air plays an entirely passive part in combustion, merely retarding the action, for in an atmosphere of pure oxygen fires would rage with inconceivable fury. We infer therefore that water formed by burning hydrogen contains only — strange as it may seem — these two light invisible gases, oxygen and hydrogen; and if we find water among the products of any combustion whatever, we know the substance burned must have contained hydrogen.

A remarkable property of our gas is its extreme lightness. We think of air as almost destitute of weight, but it is fourteen and one half times heavier than hydrogen. Attach a pipe, by a piece of rubber tubing, to the gas jet, and blow soap bubbles with the escaping gas instead of with the breath. They rise quickly through the air, and disappear with a flash and slight puff when touched with a lighted match.

Since hydrogen is so much lighter than air, we can not pour it, like carbonic acid, into an upright vessel; but if we hold the vessel inverted over the escaping gas, it will soon be filled. Fill several small bottles thus, and ignite their contents; there is a flash, and a slight explosion if air remains in the bottle. We have learned that an explosion is produced by burning a combustible substance, first intimately mixed with the necessary oxygen, or with something to supply oxygen. Gases mix with each other freely and very thoroughly. Hence a mixture of hydrogen and air is explosive, and if we ignite the gas from our jet before it has had time to drive out the air from the bottle, the contents and tubing of the latter possibly may be hurled against the ceiling. Its lightness would make hydrogen very useful for filling balloons, were it not that few substances are dense enough to hold it. It would escape through the pores of an ordinary holder, like water through a sieve.

SEARCH-QUESTIONS IN AMERICAN LITERATURE.

BY OSCAR FAY ADAMS.

XI.

SPECIAL QUESTIONS.

201. How many lines does a sonnet contain? May it have a rhyming couplet at the close?
202. Is Whittier's "Forgiveness" a sonnet? Is Longfellow's "Nature"?
203. Name three [American] hexameter poems.
204. Mention a noteworthy fifteen-syllable trochaic poem by J. R. Lowell.
205. Mention a famous poem of Whittier's containing a notably imperfect rhyme near its close.
206. Are verse and stanza synonymous terms?
207. A distinction is often made between verse and poetry; in which department would the works of Will Carleton be classified?
208. The sub-title of "Snow-Bound" is "A Winter Idyl." In the stricter sense of the term is the poem an idyl?
209. State whether these poems are epic, lyric or dramatic in character: "The Spanish Student," Boker's "Dirge for a Soldier," Mrs. Howe's "Battle Hymn of the Republic," "Hiawatha," Bryant's "Sella," "My Psalm," "The Masque of Pandora," "Drifting."
210. May "The Wreck of the Hesperus" be classified under any of the heads mentioned in 209?
211. Can Lowell's "Agassiz" be classed as either lyric, dramatic or epic?
212. Can Mrs. Whitman's beautiful "Still Day in Autumn," be accurately classed under any of the heads named in 209?
213. Has the poem "Home, Sweet Home" great poetic merit?
214. Which is Holmes' finest poem?
215. Instance an alliterative line in Kéramos containing three words beginning with the same letter.
216. In Lowell's "Under the Willows" winter is compared to Lear in a very striking manner. In which of Longfellow's earlier poems is a comparison to Lear equally noticeable?
217. Which is Longfellow's principal humorous poem?
218. What name is given to the poetry that does not embody any serious thought and has for its theme the trifle of the moment?
219. Mention poets who excel in that kind of writing.

220. In the writings of which of the following named poets is the influence of European civilization most distinctly marked: Longfellow, Whittier, Holmes, Lowell and Emerson?

ANSWERS TO JUNE SEARCH-QUESTIONS.

161. Henry Timrod, William Silmore Simms, Paul Hamilton Hayne, Mrs. Julia C. Dorr.
162. Alexander Hamilton Stephens, Joel Chandler Harris, Sidney Lanier.
163. Professor Louis Agassiz, Professor Arnold H. Guyot.
164. Alice Cary, Phebe Cary, John James Piatt, W. D. Howells.
165. John James Audubon.
166. Hjalmar Hjorth Boyesen.
167. Mrs. S. M. B. Piatt, Mrs. Jane Cross.
168. James Fenimore Cooper.
169. Mrs. Maria Brooks, William Cullen Bryant, W. E. Channing, Richard H. Dana, R. W. Emerson, Elaine Goodale, Dora Read Goodale, Robert Grant, J. G. Holland, O. W. Holmes, Lucy Larcom, J. R. Lowell, Mrs. Frances S. Osgood, W. Parsons, Miss H. W. Preston, R. H. Stoddard, J. G. Whittier, and others.
170. Will Carleton.
171. John Lothrop Motley, W. H. Prescott, John G. Palfrey, George Bancroft, Francis Parkman, Richard Hildreth, and others.
172. Bayard Taylor, Thos. Buchanan Read, Geo. H. Boker, W. A. Muhlenberg, Charles S. Leland, W. D. Gallager.
173. Daniel Webster, Joseph E. Worcester (Lexicographer), Miss Constance F. Woolson, T. B. Aldrich, Mrs. Thaxter.
174. Maurice Thompson, Joaquin Miller.
175. H. W. Longfellow.
176. Thos. Jefferson, Philip Pendleton Cooke, John Esten Cooke, Mrs. Terhune (Marion Harland), Mrs. Margaret J. Preston, Beverley Tucker.
177. W. E. Channing, George William Curtis, Geo. Washington Greene, Nora Perry, Bishop Perry.
178. George Alfred Townsend (Gath), Isaac Lea.
179. Francis Marion Crawford.
180. John G. Shea, J. T. Headley, Benson J. Lossing, John Bach McMaster, Washington Irving.

C. Y. F. R. U.

REV. J. H. VINCENT, D. D., AND REV. J. L. HURLBUT, D. D., SUPERINTENDENTS.
MISS K. F. KIMBALL, PLAINFIELD, N. J., SECRETARY.

[This department, while not less interesting to the general reader, is especially set apart for the CHAUTAUQUA YOUNG FOLKS' READING UNION, the young people's branch of the Chautauqua movement for popular home education. It supplies a course of reading for young people which is intended to give them the most valuable knowledge in the most interesting manner. The Required Readings are issued simultaneously in WIDE AWAKE and the CHAUTAUQUA YOUNG FOLKS' JOURNAL; a few added books form the Supplementary Readings. The Union is under the direction of REV. J. H. VINCENT, D. D., and REV. J. L. HURLBUT, D. D., as Superintendents, in connection with the Editors of the magazines mentioned above. Any person, young or old, may become a member of the Union by sending his name and ten cents in postage stamps to the Secretary, MISS KATE F. KIMBALL, Plainfield, N. J., to whom inquiries for further information may be addressed.]

No doubt the weather *is* warm, and vacation has many pleasures. But don't let the summer discomforts nor the summer enjoyments altogether prevent the readings of the C. Y. F. R. U. Play will be all the more pleasant, if a little study be sandwiched in it, and the heat is a little less oppressive if one has occupation for the mind. A tree in the country, or a tent on the beach, is a good place under which to do a little reading. So pack up the WIDE AWAKE or CHAUTAUQUA YOUNG FOLKS' JOURNAL among the requisites for vacation, and keep on with the course during the summer.

THE article on "The Children of Westminster Abbey" brings us to an interesting and important period in the history of England and one worthy of study, because it is a famous chapter in the story of liberty. Little did those old Ironsides of Cromwell dream that they were fighting the battle for the freedom of a continent beyond the sea; but so they were, and we reap the benefits of their victory. It would be well to read the histories of this epoch, and the life of Cromwell, who was one of the greatest men in English annals. A short biography of this hero has been recently written by Paxton Hood; and all the cyclopædias contain articles upon him. As guide-posts in the study we suggest the following topics and queries upon points in the article.

1. The story of the Princess Anne.
2. Who was Archbishop Laud?
3. What were the causes of the Great Civil War?
4. Who were the Cavaliers and the Roundheads?
5. The Story of Prince Henry of Gloucester.
6. The Trial and Death of Charles I.
7. The Rule of Cromwell.
8. The Restoration of Charles II.

Answers to Search-Questions should be addressed to Editors of WIDE AWAKE, 32 Franklin Street, Boston, Mass., with the words, "Search-Questions," in corner of envelope.

For titles of books to be given as prizes see the January number.

In reply to many inquiries: *We will receive answers to Search-Questions up to the date of the appearance of the printed answers, and will publish the names of senders, and allow prizes for correct complete lists.*

Complete lists of correct answers to the June Search-Questions have been received as follows: Rebekah E. Hill,

Bessie W. Olney, C. Y. F. R. U. of McGregor, Iowa, Nellie Ward, L. M. Alexander, Charlotte D. Iles, Fred L. Knowles, Dora Barstow, Henry J. Harland.

In addition to those already credited, correct lists of answers to the Search-Questions in May Readings have been received from "You and I Club" of Providence, R. I. (Bessie Olney, Sec.), Winifred Parker, Fred L. Knowles, Rebekah E. Hill, May F. Dunn, Star C. Y. F. R. U. of Providence, R. I. (Nellie F. Alexander, Sec.), L. M. Alexander, C. Y. F. R. U. of Lynn, Mass. (Dana A. Sanborn, Sec.), M. Adelaide Love, G. E. Bushnell, Kate Ethlyn Bushnell, C. Y. F. R. U. of Berlin, Mass. (Clara L. Shattuck, Sec.), Nellie Ward, M. A. Lanman, Alice May Morgan, Effie C. Verney.

Additional partial list of answers to the May Search-Questions have been received as follows: Edith L. Johnson, Lakeside C. Y. F. R. U. of Westfield, N. Y. (Alice E. Holt, Sec.), Fannie J. Packard, Charles G. Norton, Frank Field, Bessie Montgomery, Melvin J. Yoran, Ella M. Booth, Effie M. Thorndike, Mary L. Clark, F. B. Frye, Ethel May Adams.

One of our C. Y. F.'s writes from Ohio: In the first place I want to thank you for the beautiful books you sent me — the *Life of Bayard Taylor* and the *Life of Holmes* — for my answers to the Search-Questions. I don't see how you can afford to send such nice books for prizes to so many people. When the time comes for the magazine to be here, I can hardly wait to see if my answers were right. I had worked so hard at the *May* questions that it seemed to me I just couldn't *bear* it if my list was not correct. But it pays to get them even if one doesn't get a prize for it, for I have learned so many interesting things that I didn't know before.

I found all of this list in the Cyclopædias, with a little help from my papa and mamma, without having to ask any one outside of the family or write any letters. Generally there are two or three hard ones that I have to write letters about.

I have always loved the WIDE AWAKE, but I think more of it than ever, now that it has the Chautauqua Readings in addition.

NELLIE WARD.

One Searcher writes philosophically: "I envy the girls that have public libraries to go to. We that live in small towns where there are no libraries have hard work of it. But that adds to the interest."

A director of the Eugene, Ind., C. Y. F. R. U. writes: "A number of intelligent young people with good climbing instincts have gathered themselves together, meeting weekly for the discussion of *American and English history and literature*, using as texts from which to find suggestions of work, the C. Y. F. R. U. series, 'Westminster Abbey,' 'Souvenirs of my Time' and 'Search-Questions in American Literature.' It is quite difficult to find what we want sometimes but results obtained at some expense are naturally best appreciated. The outlines of topics given in the Chautauqua corner of the JOURNAL are particularly useful to the programme committee in preparing the slips to be distributed for 'hunting up' information. Prosperity attend the founders and no less the upholders and directors of this Chautauqua Movement."

The department, "All the World Round," in charge of Mr. Yan Phou Lee, will hereafter be found in this connection, the crowded state of the Readings proper necessitating the transfer. Members of the C. Y. F. R. U. shall find their inquiries promptly answered. Letters should be addressed to Mr. Yan Phou Lee, Yale College, New Haven, Conn.

ALL THE WORLD ROUND.

"Do the Chinese write letters as much as we Americans?"

No. They write letters, but not so often, although they are in the habit of communicating with friends by mail. One reason for this is the difficulties of transmission. It is only recently that the government has paid any attention to this important department of public business. They have established post-offices in some of the sea-port towns where foreign merchants reside with their families, and on account of the large number of letters they write the new venture is moderately successful. It remains to be seen whether the government will in course of time make the post-office a source of revenue and increase the number of offices, or still adhere to their ancient custom of transmitting messages through private persons. The millions of junks which swarm the rivers, lakes and canals of China carry what you may call the inland mail. They mean to be very careful with things committed to their charge, and even money-letters have seldom been known to be lost through the carelessness or dishonesty of the carriers, but nevertheless it is not as safe as one would wish. The charge for postage is not reckoned by weight, but by the distance and the importance of the contents, whose character is clearly stated on the envelope. It is seldom more than ten cents and generally less than five. It is considered the safest way to send letters through friends and acquaintances.

"Do the Chinese eat soup with chopsticks?"

No, but with spoons. Did you never see a Chinese spoon made of porcelain or china? It holds as much as your ordinary soup-spoon. Chopsticks are used for salads, and spoons for liquids.

"What is the approximate strength of the Russian army and navy?"

The army of Russia consists of regular and irregular troops.

REGULARS.

	PEACE FOOTING.	WAR FOOTING.
Infantry	625,000	2,000,000
Cavalry	85,000	94,000
Artillery	108,000	211,000
Engineers	20,000	43,000
Total	838,000	2,348,000

IRREGULAR TROOPS.

	PEACE FOOTING.	WAR FOOTING.
Cossacks	45,000	156,000

The navy comprises twenty-nine armored and ten unarmored ships, two frigates, eighteen corvettes and fifty-six gun-boats. Since Russia is increasing her military strength and naval armaments, especially at this present crisis, the numbers given above are only reliable to a certain extent.

"How do children in China address their parents?"

Babies learn to call their fathers "*a-dè*" which corresponds to papa; but *dè* really means "*sir*," while the *a* is put in for euphony. Mothers are called *a-ma*, nearly the same as in this country, you see. Great families sometimes teach children to say "*siee-ya*" for father, and "*siee-chè*" for mother. The first means "young lord," and the second "young lady."

This *ma* I believe is used by nearly every nation on the globe to designate the maternal. It is the "one touch of nature which makes the whole world kin."

"Have the Japanese all donned the European costume?"

No. It is adopted by the court, the army, the navy and the majority of the officials. In fact, it has been made compulsory by a recent decree on those classes. But the common people have not as yet accepted this uncomfortable product of Western civilization. One reason is because the European dress is costly, and they are loath to lay aside their cheap and flowing costume which becomes them. Yet I have seen attempts to form a union between the European and the native costumes and the result is ridiculous enough. What do you say to a Japanese fine gentleman clothed with a native robe shod with a pair of foreign boots and surmounted by a high silk hat?

"What is meant by a mandarin's button?"

In the first place, a mandarin is simply an official of the Chinese Empire and may be of any rank whatever. We have as many high-sounding titles as there are functions and duties from the High Learned Prime Minister down to an insignificant deputy ruler of a village. The button shows their rank. The red coral button denotes first and second orders; the blue belongs to the third and fourth; the crystal to the fifth; the agate, or white stone, to the sixth; and the gold to the seventh, eighth and ninth. These buttons are conferred by the emperor or his viceroys and commissioners, for meritorious work and may be won and worn by anybody irrespective of birth.

THE WIDE AWAKE POST-OFFICE.

WEST RANDOLPH, Vt.

TO F. M. W. AND OTHERS:

I have read with considerable interest the letters in WIDE AWAKE regarding story-writing by young people and beg leave to say a few words, through this most excellent medium, to them.

It is very true that a youthful writer cannot find so much favor in the editorial view, as an elder and more experienced author; but if there is not a place for them in the professional field of literature, then let them turn their labor to Amateur Journalism, where every writer is needed.

The Amateur Press is, as Ex-speaker Randall once said, "the noblest work ever engaged in by the American youth;" and more and abler writers are needed to aid in this "work."

There are many publishers of Amateur Papers who desire young writers to write stories, sketches, poems, etc., for their papers. Of course they receive very little or no pay for the articles, but what great good it does them! how excellent is the practice occasioned by this work. They acquire a certain style, they are brought before many young readers, and many more advantages I cannot stop to name, but that any one can think of for himself. And as the paper grows older, or the writer does, they improve and produce better articles, their opinions become worth much more, and finally they are on the professional press. Nor have I been telling a pretty little fable; for many of the ex-editors and contributors of Amateur Papers are now well known to fame, as Thomas Edison, Nathaniel Hawthorne, Charles Scribner, and so on.

If any wish to know more about this Amateur Journalism, let them write to me enclosing stamp and I will try to answer them and tell them more about it.

HENRY K. GILBERT.

MACON, Mo.

DEAR WIDE AWAKE:

In answer to the inquiry of Maud Burton, Providence, I will say that there were no cents issued in 1815. This is the only date missed between 1793 and the present time.

CHAS. CASWELL.

MATTAPAN, Mass.

DEAR WIDE AWAKE:

I read your columns as soon as they are issued; only I wish it was every week instead of every month. I am very fond of reading, perhaps too much so; and I care nothing about learning to cook, like some girls—it is a great deal nicer to be reading an interesting book and eat only what your older sister cooks. And besides it is such a tax on one's memory to commit recipes, and then on a trial of them, to have one's compound sink into insignificance. It is very nice to be a good cook, but I had rather be inspector. If any of the WIDE AWAKE girls would like to correspond with me, whether they are cooks or not I should like to have them.

EDITH G. BLAISDELL.

SWAMPSCOTT, Mass.

DEAR WIDE AWAKE:

I have taken you three years and like you very much. Last year we were in Europe and didn't come home till June. We had you every month. We were in Bonn, Germany, three months, where my little brother Paul and I went to school. My school was a girls' academy; there were about three hundred girls, thirty of whom were English. I was the only American. Then we were in Wiesbaden two months, and in Lausanne, Switzerland, two, and travelling about. I had very nice companions all the while.

M. C. E. JACKSON.

RACINE, Wis.

DEAR WIDE AWAKE:

This is the second year I have taken you and I like you very much. I am ten years old. I cannot go to school today it is so stormy. I have a little sister, three years old named Dora, who likes to look at your pictures. In the back part of the November number there is a picture of two little girls sitting on the stairs looking very sad, called "Where is mamma?"

One night when Dora was almost asleep she said, "I wish dose little dirls' mamma would tum home," in a very sad tone. One day mamma was looking for her thimble a long time, and Dora said, "I will find your thim'le," and getting a chair she climbed up in the closet and found it in *her little cloak pocket*, and said, "I put it there so it would not get lost."

MAGGIE CLARK.

LYNCHBURG, S. C.

DEAR WIDE AWAKE:

We have been taking you in our school two years, and I feel inclined to tell you how much we enjoy reading your pages. You give us such delightful variety. We do so much enjoy Mrs. Jessie Benton Frémont's "Souvenirs of My Time." She holds up the very best side of Washington life. "Crazy Sally" is almost as good to us girls. I hope she will continue to write, for if I mistake not she is the only writer that pictures our Southern home life for your many readers. I read "A New Departure for Girls," with keen relish. We are pleased to renew our acquaintance with the Frosts in "How the Middies Set up Shop." I wish Mrs. A. D. T. Whitney would tell us some more about Aunt Thankye. I hope Mary L. Branch will write again soon. Her sketch of school-life is very real. How charmingly Rose Kingsley writes! And the author of "Toby!" Do give us some more from him or her. Well, I could write on and on about your many pleasant writers, but I must not trespass on your time.

I will be glad to hear from some of the WIDE AWAKE girls and boys. I am the only child in our pleasant home. I have brothers and sisters; but was adopted by my aunt

and uncle when I was one year old, and have grown to love them as girls love their own mothers and fathers. I would like to correspond with some adopted children, to compare notes. I doubt if many of them are more blest than is your friend.

MARY WIGHT DURANT.

DEAR WIDE AWAKE:

I am a very little girl only ten years old. I am a pupil of the fifth-year grade, Hopkinville Public School. Our teacher said that the one of the class that brought her the best original story should have it sent to the WIDE AWAKE. I am the fortunate girl and now, Mr. Editor, will you please publish it for me? We read your magazine in school and how proud I will be when I see one of my own stories in print.

LIZZIE LONG.

(*Lizzie's Story.*)

KATIE AND HER GODMOTHER.

Once upon a time, when fairies and hobgoblins were as common as superstitious people are now, in the little village of Redjacket, one summer morning, a little girl might have been seen sitting in the porch of a large pleasant-looking country house. She had dark eyes and hair, long lashes, rosy lips and plump, snowy arms and neck, but she had one fault, that was forgetfulness. This sweet child was an orphan, who lived with her grandparents. They loved her very much because she was so obedient and loving. While she was sitting on the porch she heard a very sweet, silvery voice say, "My good child, I am your godmother and have come to give you the gift which ought to have been given you at your birth, but, being absent at that time, I was obliged to wait until you were eight years old, I now give it you." As she spoke she handed a silver wand to Katie, (for that was the child's name), saying as she did so, "This my child, is my gift, which, if you wave over any animal, the animal will change its shape for that of any other animal that you may choose." Saying this she disappeared. After she had gone, Katie rose and went out in the yard to find something on which to test the magic wand. After looking for some time, and not seeing anything but fowl, her eye alighted on a black-and-yellow cat which she made up her mind to change, because she knew that her grandfather would not care. So she went up to the cat and said, "I wish you to become a white pony with jewelled bridle." Immediately there stood before her the cunningest little white pony, about four feet high, which she mounted and rode through the little village to the delight of the children and the surprise of the older people. She had forgotten all about the wand in her delight over the pony, and when she came home what was her terror to find it was not on the ground where she had left it. She looked everywhere, but it was nowhere to be seen. So distressed was she that she sat down in a secluded corner and cried herself to sleep. When Katie awoke she saw the fairy standing before her, who, seeing traces of tears on her cheeks, asked her what was the matter. When Katie had finished her

story the fairy said to her, "My child, I took the wand while you were enjoying yourself on your pony, intending to teach you a lesson on thoughtfulness. You ought never to forget this lesson, or sometime your forgetfulness may cause a more serious misfortune." And Katie never did forget.

SILVER BIRCHES FARM.

DEAR WIDE AWAKE:

This is the first time I have written to you. I am eleven years old, and have two sisters and one brother. We have our lessons at home with mamma. We have some fowls, which are my care; and two horses and three cows, beside some young cattle. My sisters Annie and Grace have pet rabbits which live in the grove near the house. This grove is our playground. Our croquet-ground is in the middle of it, and we have made a walk all around the grove which we call "Shady Lane." There is a lake in sight of our house on which we sail in summer and skate in winter. We can all skate but Gracie who is but four years old. Annie is ten, and Percy eight. Our home is in New Brunswick, Canada.

WILLIE PETTINGELL.

DORCHESTER, Mass.

DEAR WIDE AWAKE:

When we lived at Willow Brook, we had a very funny thing happen to our bean-pot. Mona was our dog. She was a Scotch deer-hound, and could run very fast. In the meadow in front of the house, were some large, willow trees. They were hollow. Mona used to carry her puppies and put them in these trees. The trees were all rotten inside, and the ground was all covered with this decayed wood. One day, mamma had some baked-beans in the oven. When they were done, she took them out and put them on the floor, near the stove. She went off and left them for a little while. When she came back, she couldn't find them anywhere. She asked the girl where they were, but she didn't know anything about them. At last they gave them up.

About three days after this, mamma and I were sitting at the window, when we happened to look out into the meadow. Mamma saw something black sticking up in the grass. We couldn't imagine what it was. We went down, and found that it was the bean-pot. The bottom of it was covered with the moist wood that was in the tree. We thought that Mona must have taken it into the tree. There were just a few beans left in the bottom of it. To prove that Mona took it, mamma left a few beans in it, one day when we had had some, and put it in the same place as before. Then she went into the dining-room, and stood behind the door. She had left the kitchen door open. By and by Mona came in. She looked all around, to be sure no one was looking, and then went up to the bean-pot. She took it up by her teeth, and had got as far as the door with it, when mamma took it away from her. I suppose you know that a bean-pot is hard for a dog to carry. This is a true account.

M. E. W.



THE CHILDREN OF WESTMINSTER ABBEY.

BY ROSE G. KINGSLEY.

XII.

WILLIAM HENRY, DUKE OF GLOUCESTER.

FROM our childhood up we have all heard of "Good Queen Anne." When we were small tots in the nursery we sang little rhymes about

Queen Anne, Queen Anne, she sat in the sun.
I send you three letters, you don't read one.

Then as we grew older we succumbed more or less to the rage for the eighteenth century which has laid hold of so large a section of English and Americans during the last few years. And we began to use Queen Anne's name in season and out of season—to talk glibly of Queen Anne architecture—Queen Anne furniture, and Queen Anne plate. The subject is doubtless an interesting one. And I for one am very grateful to Queen Anne—or rather to the architects of her reign. Those stately red brick houses of her time, though they are far less graceful than Elizabethan mansions, and less romantic than the French chateaux of the same period with their high roofs, and charming tourelles with extinguisher tops, are among the most comfortable, homelike, lovable dwelling-places we can find in England.

The plate too of Queen Anne's reign is justly esteemed as the handsomest and richest that can be found. As I write a bit of veritable Queen Anne plate stands beside me on the table—a graceful little candlestick five inches high, of plain, solid silver. No need to look at its Hall-mark, or puzzle over its history; for the only ornament on its foot is an open-work pattern formed of roughly cut letters, "Queen Anne. 1702"; and on the rim above is engraved "His Highness Prince George. S. L. S. Anno Dom. 1702."

The candlestick was a present from Queen Anne, on her coronation, to a certain old ancestress of ours, who had been one of the ladies in attendance on the Queen's young son, William

Henry, Duke of Gloucester—the only one of her numerous children who lived beyond his babyhood.

This little boy, the last of our children of Westminster Abbey, was born on July 24, 1689. It was a memorable year in the history of England, for it had seen the great and bloodless revolution by which James the Second had been driven from England, and William the Third put on the throne. The misgovernment of James had become unbearable, and William, Prince of Orange, who had married the king's eldest daughter Mary, was invited "by a small party of ardent Whigs to assist in preserving the civil and religious liberties of the nation." William and Mary accepted the Declaration of Right, and were crowned as joint sovereigns on April 11, 1689. They had no children. So when Princess Anne, the Queen's sister, and wife of Prince George of Denmark, gave birth to her little boy in the following July, he was welcomed as the future King of England.

King William and the King of Denmark were the baby's godfathers. The marchioness of Halifax was his godmother. Queen Mary adopted him as her heir, and the king conferred upon him the title of Duke of Gloucester; but he was not created Duke "because his mother considered that title dreadfully unlucky."

But at first it seemed highly improbable that the poor child would live long. He was delicate from his birth—very small—and for two months his death was constantly expected. The doctors advised an incessant change of nurses; and the wretched baby, as was to be expected, grew weaker and weaker. At last, however, a fine-looking young Quakeress, a Mrs. Pack, with a month-old baby in her arms, came up from Kingston to tell the Princess Anne of a remedy which had done her children good. The Prince of Denmark besought her to become wet-nurse to the suffering little prince; and from that moment the unfortunate child began to thrive.

Then came the question of the most healthy residence for the baby on whom so much depended. And Princess Anne at length chose Lord Craven's fine house at Kensington Gravelpits,

which he offered to lend her for the little prince's nursery. He went out every day, no matter how cold it was, in a tiny carriage which the Duchess of Ormonde presented to him. The horses were in keeping with the size of the carriage; for they were a pair of Shetland ponies, "scarcely larger than good-sized mastiffs," and were guided by Dick Drury, the Prince of Denmark's coachman.

The first two or three years of the little Duke of Gloucester's life were spent between Lord Craven's house at Kensington, and London. For in those days be it remembered, Kensington was a country village, out in the woods and fields, far away from town. West of Mayfair there were no houses until Kensington was reached on the breezy slopes of Camden Hill. South Kensington, that vast quarter of handsome houses, has only come into existence in the last fifty years. The writer's grandfather was laughed at for going "out of town," when he and his old friend, Lord Essex, built themselves two of the first houses in Belgrave Square in the early part of this century. And he and his elder sons had capital snipe-shooting in the marshes which separated Chelsea, an isolated town of old houses, from London.



A WESTMINSTER BOY.

The Princess Anne and the queen were on exceedingly bad terms, the chief reason of their disagreement being Anne's passionate devotion to the famous Sarah Jennings, wife of the yet more famous Duke of Marlborough. The Marlboroughs, a clever, able, ambitious, unscrupulous pair, encouraged the jealousy between the sisters to secure their own ends; and at length formed a "Princess's party," which gave William the Third considerable trouble during his reign. The Queen insisted that Lady Marlborough, as she then was, should be dismissed from the Princess's service. Anne was equally determined to keep her beloved friend about her at all risks. This led to endless disputes and quarrels between the royal ladies, and the little Duke of Gloucester became a fresh subject of contention. When she was in town,

the Princess, who was a tender mother, passed much of her time in the nursery of her heir. . . . Whenever the Queen heard her sister was there she forebore to enter the room,

but would send an inquiry or a message to her royal nephew — "a compliment," as it was called in the phraseology of her day. The set speech used to be delivered by the queen's official in formal terms to the unconscious infant, as he sat on his nurse's knee; and then the courtly messenger would depart without taking the slightest notice of the Princess Anne, although she was in the room with her child. Sometimes Queen Mary sent her nephew rattles or balls, or other toys, all which were chronicled in the *Gazette* with great solemnity; but every attention to the little Gloucester was attended with some signal impertinence to his mother.*

For two years the little boy thrived well in the good air of Kensington, without any illness. But in the third year he was attacked by ague. Fifty years before, he would probably have been bled and reduced in every way, and would speedily have died. But medical science was improving; and a wonderful discovery had been made in far-off Peru. The ague was cured by Doctor Radcliffe and Sir Charles Scarborough, "who prescribed the Jesuit's Powder, of which the Duke took large quantities early in the spring of 1694, for the same complaint most manfully." †

This Jesuit's Powder was none other than the famous Peruvian Bark, made as we all know from the bark of the Chinchona trees, so-called by Linnæus after the Countess of Chincon, wife of the Viceroy of Peru. This lady's cure in 1638 from a desperate fever, brought the quinine — the "bark-of-barks" as its Indian name signifies, into notice; and gave the world one of the most precious remedies we possess against disease.

This ague was the first, but by no means the last, illness our poor little boy had to endure; for all through his short life he was delicate.

His faithful attendant, Jenkin Lewis, a young man who was tenderly attached to him, has left us a most interesting memoir of the young prince. And from this we get charming details of his daily life, his many illnesses, and his character.

When he first began to walk about and speak plain, he fancied he must be of all trades; one day a carpenter, another day a smith, and so on; which the queen observing sent him a box of ivory tools, said to cost twenty-five pounds, which he used till he learnt the names of them, and also the terms of those mechanical arts. ‡

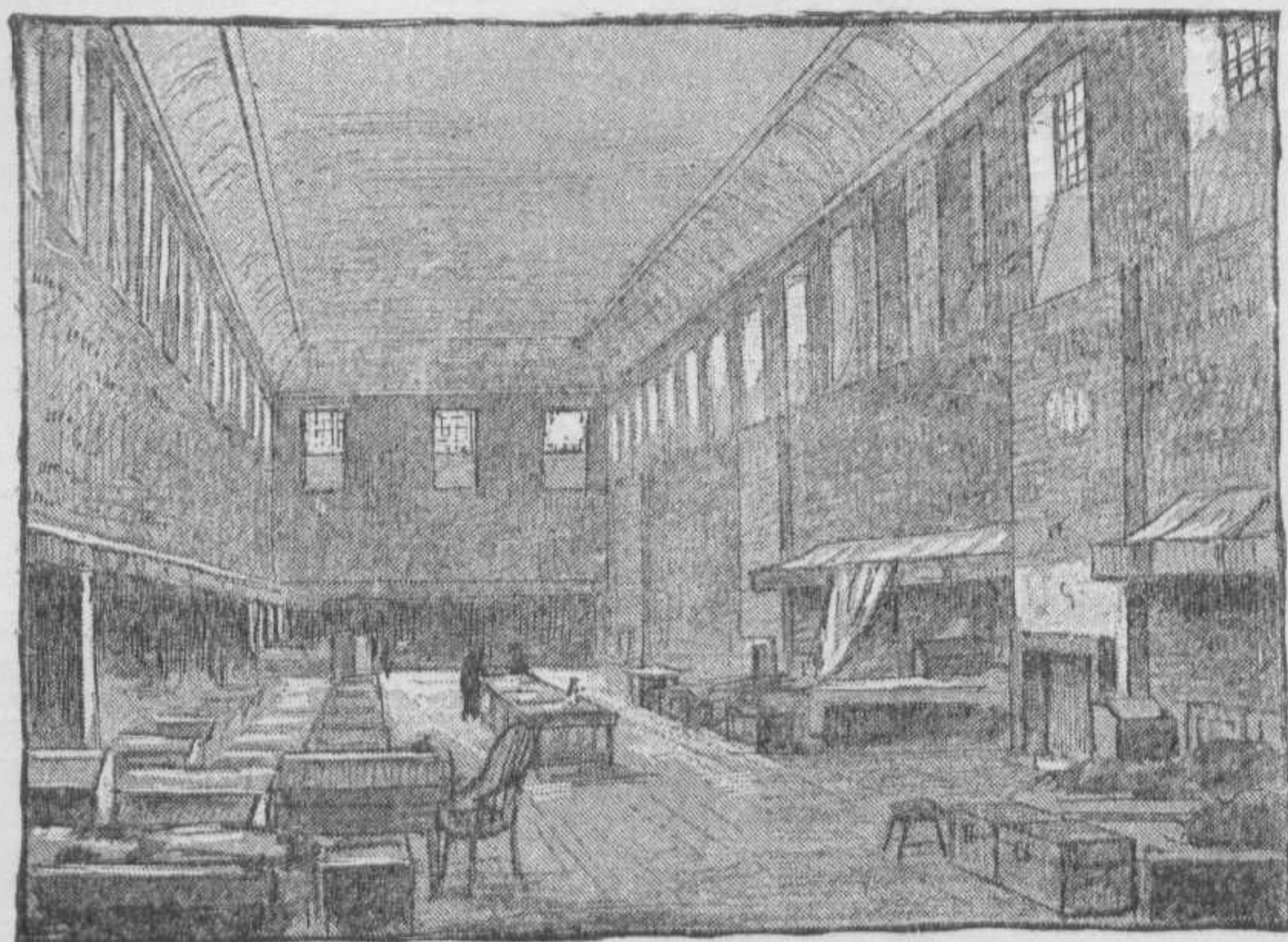
But from his infancy the little duke began to show his passion for horses, drums, and anything to do with soldiers. In 1693, when he was only four years old, he threw away childish toys, saying he was a man and a soldier. And he had up from Kensington village a little company of twenty-two boys, wearing paper caps and armed with wooden swords, who enlisted themselves as his guard. The duke was enchanted; and appointed a very pretty boy, Sir Thomas Lawrence's son, to be

* Strickland. "Lives of the Queens of England." Vol. VII. p. 237.

† "Memoirs of Prince William Henry, Duke of Gloucester." By Jenkin Lewis. p. 7.

‡ Ibid. p. 8.

lieutenant. This little army was his constant delight. In a short time the child gained a real knowledge of military matters; and before long he began to use his bodyguard to some purpose.



THE OLD DORMITORY AT WESTMINSTER SCHOOL.

In 1694, seeing how active he was, and that "his stiff-bodied coats were very troublesome to him in his military amusements," the Prince and Princess put him into breeches on Easter Day.

His suit was white camblet, with silver loops, and buttons of silver thread. He wore stiff stays under his waistcoat, which hurt him; whereupon, Mr. Hughes, his tailor, was sent for; when he came the duke bade his boys (whom he stiled his Horse Guards) put the tailor on the wooden horse, which stood in the presence-room for the punishment of offenders, as is usual in martial law: who presently were for hoisting him on, if they had had strength enough.*

It must have been an absurd scene. The little duke, not five years old, in his first pair of breeches, long waistcoat of white and silver, and coat with wide skirts and handsome, deep-cuffed sleeves — the bodyguard of small rogues setting on their victim — and the hapless tailor, who was so genuinely alarmed at these violent proceedings that good-natured Jenkin had to beg him off.

A year or two later we find the duke going down to Kensington Palace, where he ordered his boys — now two companies numbering ninety in all, armed with wooden swords and muskets, and in red grenadiers' caps — to exercise in the garden before the king and queen. The king was delighted; and gave the young soldiers twenty guineas, besides two gold pieces which he presented to one of them, William Gardner, who beat the drum "equal to the ablest drummer." The next day, Sunday, the king sent word he was coming to visit his nephew. This was a great occasion, as the king very seldom came to see him. The duke prepared a pasteboard fortification, and got his four little brass cannon ready; and when the king arrived the boy was so engrossed in shewing him that he could salute him like a soldier and

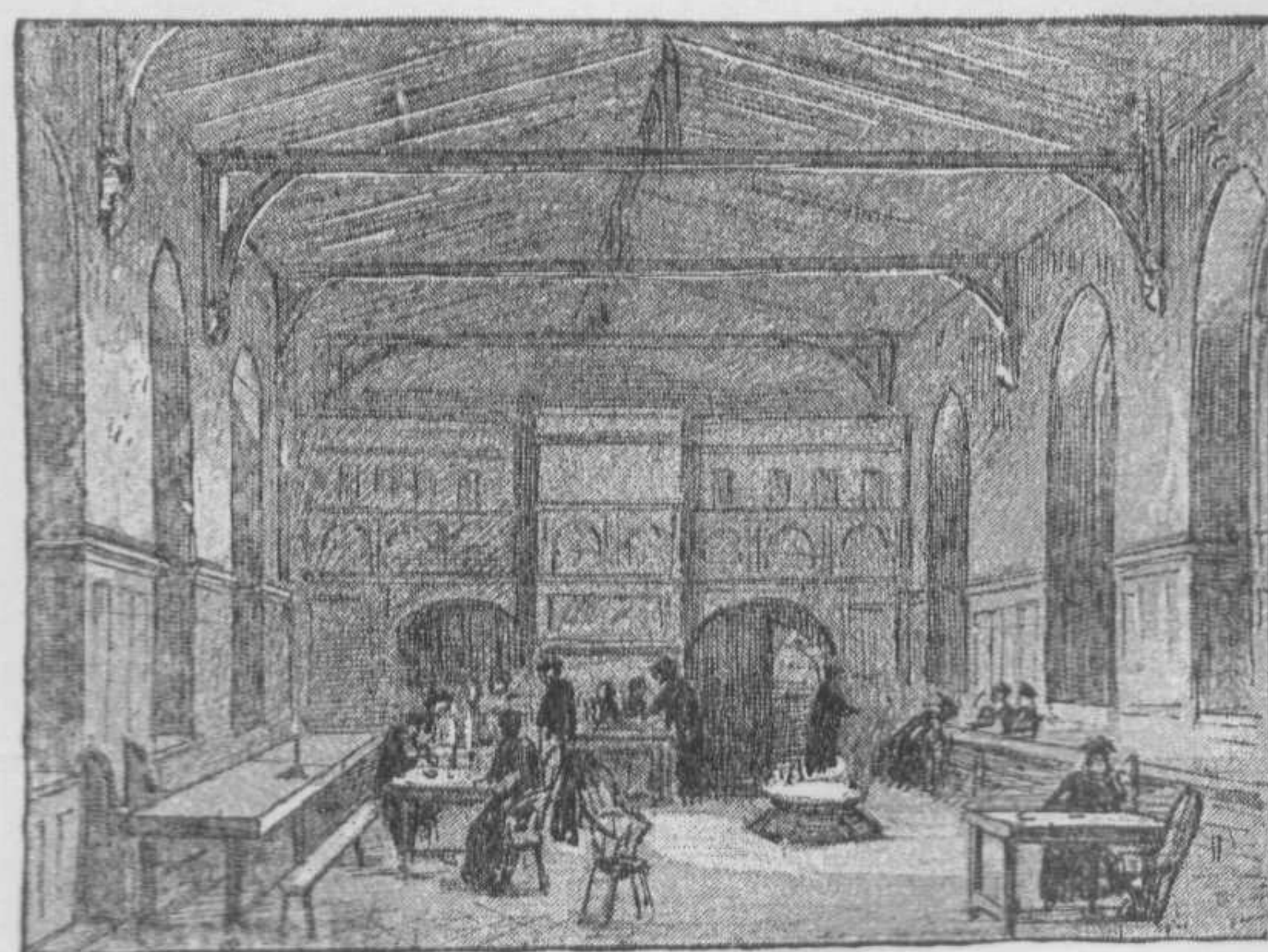
afterwards "compliment him," that he could not be persuaded to thank His Majesty first for coming. He fired his cannon, and he

then talked to the king of horses and arms, and thanked him of his own accord for the honor he did him in coming to see him. He told the king that one of his cannon was broke; the king promised to send him some cannon, but never did; the duke thanked him and complimented him in these words — "My dear king, you shall have both my companies with you to Flanders," where the king was to go soon after.*

All his talk was of wars, soldiers, and fortifications.

He was scarce seven years old when he understood the terms of fortification and navigation, knew all the different parts of a strong place and a ship of war and could marshal a company of boys, who had voluntarily listed themselves to attend him. . . . He had a particular aversion to dancing and all womanish exercises, his whole delight being in martial sports and hunting.†

Even when he was ill in bed he insisted on having his cannon drawn up in his sight, and made his servant stand sentinel at his door as in a fortress. The faithful Jenkin told him stories of Alexander and Cæsar, and on the sly studied the art of fortification, in order to teach the young duke more about it. But this was discovered by Lady Fitz Hardinge, who was the queen's spy in Princess Anne's household. Jenkin Lewis was threatened with instant dismissal if he ventured again to instruct the boy in matters with which he had no concern; and he was obliged regretfully to put away his fortification books. But he found a more allowable diversion in putting some of the young duke's words of command into verse, and had them set to music by Mr. John Church, "one of the gentlemen of Westminster Abbey, who had studied Mr.



DINING HALL, WESTMINSTER SCHOOL.

Henry Purcel's works and imitated his manner." It was not very grand poetry, but the little soldier was delighted. It begins —

* Memoir. Jenkin Lewis. p. 16.

† "Impartial History of Queen Anne's Reign." Bishop White Kennett. p. 39.

* Memoirs. Jenkin Lewis. p. 8.

Hark! hark! the hostile drum alarms;
Let ours now beat and call to arms!

In 1696, after the discovery of the Rye House Plot, royal addresses were offered to the king by both Houses of Parliament, and an association was formed to preserve King William or avenge his death, which was very generally signed throughout the kingdom. The Duke of Gloucester and his boys were eager to follow the public example.



WESTMINSTER ABBEY, LOOKING TOWARD THE ALTAR.
From etching by H. Toussaint.

The duke composed an address which one of his boys wrote down as follows:

I, your Majesty's most dutiful subject, had rather lose my life in your Majesty's cause, than in any man's else; and I hope it will not be long 'ere you conquer France.

(Signed)

GLOSTER.

He also dictated one for his boys and his household to sign, which was much to the point, and ran thus:

We, your Majesty's dutiful subjects, will stand by you as long as we have a drop of blood.

The prince and his boys were closely associated in all their pursuits and interests. Not only did they study the art of war, but they were catechised together by Mr. Prat, the duke's first tutor. The child had been carefully instructed in religion from his infancy. "He had early suck'd in his mother's piety," says one writer, "and was always attentive to prayers." One day in the catechising, Mr. Prat asked him before his boys, "How can you, being born a prince, keep yourself from the pomps and vanities of this world?" And the little fellow made the simple and straightforward answer, "I will keep God's commandments, and do all I can to walk in his ways."

He was a pretty boy. Something like his royal mother in her younger days; for she is described as a "sylph-like creature" when a girl, though she afterwards grew to be the mountain of fat we know in her portrait.

"His face was oval; and for the most part glowed with a fine colour. His shape was fine, his body easy and his arms finely hung."*

His disposition was naturally a sweet one; and he was admirably loyal to his friends and attendants, always willing to take blame himself rather than allow another to be scolded. But his weak health, a strong will, and a hot temper made him liable to fits of passion in which he lost all control over himself. Jenkin Lewis describes some of these outbursts of fury, and one in particular when he was the object of the prince's wrath. Jenkin quietly turned him round to the looking-glass, so that the boy might see what a shocking spectacle he was making of himself. Whereupon his passion fell as quickly as it had risen. He grew calm upon seeing himself, and expressed his sorrow.

When he was nine years old, the king appointed Bishop Burnet to be his preceptor, and the Duke of Marlborough to be his governor.

The Bishop writes two years later, that he had made "amazing progress." They had read together the Psalms, Proverbs and Gospels, and the bishop had explained things that fell in his way "very copiously, and was often surprised at the questions he put me, and the reflections that he made. He came to understand things relating to religion beyond imagination."† Besides religion

* Jenkin Lewis.

† Memoir. Jenkin Lewis. p. 100.

the good bishop seems to have crammed his pupil's head with a mass of knowledge — geography, forms of government in every country, the interests and trades of every nation, the history "of all the great revolutions that had been in the world;" and he explained "the Gothic constitution and the beneficiary and feudal laws."

No wonder that as one historian says, "his tender constitution bended under the weight of his manly soul, and was too much harass'd by the vivacity of his genius, to be of long duration. . . . In a word, he was too forward to arrive at maturity."*

On July 24, 1700, the Duke of Gloucester was eleven years old. The next day Bishop Burnet tells that he complained a little; but every one thought he was tired with his birthday festivities. The day after he grew rapidly worse. A malignant fever declared itself, and he "died on the fourth day of his illness, to the great grief of all who were concerned with him." He was buried quite quietly, in the same vault as his great-uncle Henry, Duke of Gloucester, beside their common ancestress, Mary, Queen of Scots.

The death of this little boy was an event of enormous importance to England. The Stuart line was at an end, and the eyes of England now turned to George Lewis, the Elector of Hanover, grandson of that unfortunate Queen of Bohemia, whom we know best as Princess Elizabeth, the favorite sister and playfellow of Henry Frederick, Prince of Wales. And with the death of "the last hope of the race — thus withered, as it must have seemed, by the doom of Providence"† — our history of the children of Westminster draws to a close. Besides those whose lives and stories we have studied together, there are several of whom little is known but the facts of their death and burial in our stately Abbey. The year before little William, Duke of Gloucester, was born, two "holy innocents" were laid to rest at Westminster; one, Nicholas Bagnall, an "infant of two months old, by his nurse unfortunately overlaid," is commemorated by a white marble urn in the Chapel of St. Nicholas, among the Percys and the Cecils. And in the Cloisters there is a touchingly simple tablet which Dean Stanley delighted to point out to every one, bearing these words:

"Jane Lister, dear child, died October 7, 1688."

In 1711, three years before Queen Anne's death, a young Westminster Scholar, Carteret by name, aged nineteen, was buried in the North Aisle of the Choir, "with the chiefs of his house." This is, I think, the only instance of a Westminster boy being buried in the Abbey. And young Carteret, the Westminster Scholar, leads me to an institution at Westminster which I have too long neglected. I mean Westminster School.

From the earliest days of the Abbey, from Edith and Edward the Confessor's time, a school for the

training of the novices was attached to Westminster as to other great monasteries. When the constitution of the Abbey was changed by the dissolution of the monasteries in 1539-40, Henry the Eighth founded a school in connection with the reformed Abbey. But the school was refounded and enlarged by Queen Elizabeth in the year of the Armada, and to her we owe its prosperity and fame. The great tables of chestnut wood in the black-beamed College Dining Hall, are said by tradition to have been given by the queen from the wrecks of the Spanish Armada. From this time forth Westminster School took its place among the most famous public schools in England. The names of many of the greatest of England's worthies are inscribed on the walls of the old schoolroom. In Elizabeth's reign the famous Camden was its head master. And a few years later we find young George Herbert being commended to the Dean for Westminster School, where "the beauties of his pretty behavior and wit shined and became so eminent and lovely in this his tender age, that he seemed marked out for piety and to have the care of heaven, and of a particular good angel to guard and guide him."*

Westminster School was always loyal, and during the Protectorate the boys were ardent partisans of the king, whose scholars they said they were and would always remain. "It will never be well with the nation until Westminster School is suppressed," said the Puritan Dean of Christ Church, John Owen.

However, the "King's School" remained vehemently loyal in spite of all the efforts of the Presbyterian and Independent preachers in the Abbey; and it was not suppressed.

In Queen Anne's reign the School buildings took their present form. The old Dormitory, which had been in the Middle Ages the Granary of the Convent, stood on the west side of Dean's Yard.

The wear-and-tear of four centuries, which included the rough usage of many generations of schoolboys, had rendered this venerable building quite unfit for its purposes. The gaping roof and broken windows, which freely admitted the rain and snow, wind and sun; the beams, cracked and hung with cobwebs; the cavernous walls, with many a gash inflicted by youthful Dukes and Earles in their boyish days; the chairs, scorched by many a fire, and engraven deep with many a famous name — provoked alternately the affection and derision of Westminster students.†

So the Dormitory was doomed, and was re-built by Lord Burlington after designs by Sir Christopher Wren, in the College Garden — a lovely space of cool green beyond the Little Cloisters — where it stands to this day.

The school of Westminster has been always intimately connected with the Abbey Church, since the days when the abbot sat on one side of the Great Cloisters with his monks, and the master of

* Bishop White Kennet. "Impartial History of Queen Anne's Reign." p. 39.

† "Memorials of Westminster Abbey." Dean Stanley. p. 196.

* "Walton's Life." p. 24, Vol. II.

† "Memorials of Westminster Abbey." Dean Stanley." p. 536.

the novices on the other with his disciples. And quaint customs still survive from early days in which the Chapter and the Scholars take part more or less.

Across the Great School runs the famous Bar, over which it is the duty of the college cook to toss a pancake on Shrove Tuesday "to be scrambled for by the boys and presented to the Dean." Once a year the Dean and Chapter "receive in the Hall the former Westminster Scholars, and hear the recitation of the Epigrams, which have contributed for so many years their lively comments on the events of each passing generation," * a relic of the old custom by which the Dean and Prebendaries dined in the College Hall—the ancient Refectory

* "Memorials of Westminster Abbey." Dean Stanley. p. 481.

—with all the School. Every Sunday and Saint's day during the school year, the Westminster Scholars troop into the Choir in the white surplices in front of the Abbey body, and take the seats which have been theirs by right since the coronation of James the Second. And in modern days their shouts from those seats have testified the assent of the people of England to the sovereign's election in the Coronation Service.

And now from the shouts of the young, vigorous, active boys of Westminster, let us turn once more to the Abbey. In its still dim aisles, under the vaulted, misty roof, let us bid a tender and loving farewell to its children who have "gone before"—whose sweet memories live in the minds of men; whose souls are safe in God's good keeping; and whose ashes rest in England's Pantheon.

SOUVENIRS OF MY TIME.

BY MRS. JESSIE BENTON FREMONT.

XII.

CALIFORNIA.

IT is presumption to put that comprehensive name to this fragmentary brief paper, when the space given me would not answer for a mere index of the many delightful pictures memory brings up; episodes illustrating character under new and trying conditions, with results chiefly good—even under the test of sudden and great success.

My geese are *not* all swans as good Judge Black once growled at me; but I detest what is unlovely and of bad repute, and such things find no intentional remembering from me.

Even in '49 when we were pretty much in the conditions of shipwrecked people where each one becomes a law to himself, the element of good decidedly prevailed. And California does not owe her beautiful harvests of grain and wine and fruits to fitful use of energies. To be sure the climate makes unbroken energetic health. A young friend, who had grown up in the interior, said very fairly when in Washington: "It is very easy to kept Lent here on shad and terrapin, but on salt-fish it is a penance." Winters below zero with pneumonia attached, and ninety degrees and sun-strokes for summer, allow no such vitality as is the rule in "that fair land of flowers." Exertion is a penance half the time here.

I wish I could tell you of my lovely camping-out travel for months; of my visits by the way to

the ranches of the native Californians and their genuine hospitality and their good housekeeping; their immense families—fourteen, twenty, even twenty-six children among whom sickness was unknown, and the wonderful grandmothers—all were proofs of the fine climate. One of these grandmothers, a Madame Castro, over eighty when I saw her, remains to me a type of this patriarchal and contented people as they were until we brought among them our American unrest and turmoil.

She wished to thank me in person for "Don Flémon's" protection of all women during the military movements in taking the country; she was old, so she sent me word, but would come to see me in Monterey if sure of finding me there.

I had the only carriage in the country—built in New Jersey for me and shipped out months before, so that I found my transportation ready.

The trouble of finding any animals that would submit to harness would make a story to charm boys. They had to give up and let me have mules however, for it made me wild with fright too, to carry on the experiments with bucking, rearing, backing horses, screaming and sweating with terror.

It was my Pullman car, for in it I could sleep by night, and go comfortably wherever wheels could go. The California women travelled but little and that on horseback, or in the slow heavy creaking *carreta*, a low wagon-body without a spring, with solid wood wheels, and drawn by oxen. I would not let the old lady be jolted in that way for me and went willingly enough to her.

The want of undergrowth, the beautiful grasses and wild flowers and the fine trees made all the coast-country look like parks, and the framing of landscape for the family picture was good when we reached the group waiting us in front of the long low house.

There was fashion, even here. It was "de modo" to wear on fine occasions a full petticoat of scarlet broadcloth with points of green silk, stitched beautifully point upward, as a border around the bottom. Over this a gown of the dull-toned damasked Chinese satin. Madame Castro wore the obligatory English scarlet cloth petticoat and her gown of olive satin was pulled through the pocket holes either side, making a good wateau effect. A small crape shawl of many soft colors was crossed over the breast and the ends trimly tucked back. Sunburned and naturally dark, she had still much of the rich color of the young women near her. Her brilliant black eyes were large and steady, and the thick white hair made a puff as it was turned back from the face and coiled in a large plait at the neck. Children, grandchildren and great-grandchildren were around her, assembled to do me honor — coming forward, as she named each, with smiles that showed their beautiful white teeth — as fine almost in the venerable mother of all as in the Murillo girls. Her dignity of welcome, and the good she invoked for me in return for the care they had had from Mr. Frémont was sincere and impressive. And so beautifully free from self-consciousness!

She, and all the native people, were erect and of free firm movement. You could see that neither in mind or body had they known depressing influences.

I do not like to remember how we changed all that. A carefully drawn treaty had guarded their rights, but this proved of no avail.

They could not answer the searchers of titles as that fine old English Earl answered King John "Lackland"'s commission to search, and confiscate to the crown all titles not seeming to them sound; flinging his big sword on the table among their parchments, "There is my Title. By their good swords mine ancestors won these lands and by my sword I will hold them;" for these were only a peaceful people, with herds and flocks and fruits and vines.

The men lived much on horseback and had excitement and pleasure in theirs and their neighbors' cattle interests. Dancing and abundant but temperate feasting brought together the families, and though I saw this only in its dying phase, it was even then "enjoyment" — not as a phrase but as a fact.

The roomy long one-story houses with shaded courtyard and large high-walled garden made the boundary of the women's lives. Here they overlooked diligently their Indian servant girls — bap-

tized and "Christians" — who were good at fine sewing and in cooking food which was savory and wholesome. We could turn into any rancho and find this same contented orderly abundant home living; whatever they had was offered without explanations or efforts at varying.

No end of fancy needlework decorated their wearing and house-linen. They were amused that I should admire it so much; like their good cookery it was the survival of Spanish convent-training, coming down to them in household tradition and therefore only matter-of-course.

All that is only a memory to them as to me. It was so strangely peaceful and contented I like to tell of it.

It would take a volume to record what I have seen of the amazing transformations made by our own people. The whole California chapter is one of the most interesting in the world's history — so rapid, yet so useful and so far-reaching that I can recall no parallel. One would have to go very much out of the beaten paths now to find anything peculiar or characteristic; the Bret Harte models, like the buffalo, disappeared before the railways, for peculiarities, like feuds, "cannot withstand social intercourse."

The heat, which becomes intense in these inland valleys, had made me ill and I came down, rather suddenly, from our mining place in the mountains to San Francisco and sea-air, getting a start of twelve miles by leaving home in the late afternoon and resting for the night at Murray's — a comfortable inn on the Merced river. The good bridge there, and Osborne's ferry on the Touolumné, and their two good inns, decided the route. Having our own travelling resources we chose our own hours. We had a pair of horses which made the eighty miles easily in two days, getting in in time for the afternoon boat from Stockton, where they rested until the return. In cool weather they had several times made it in one day, but that was necessity, and the man who always drove them knew how to spare a horse and was fond of these two. "Coachman" I cannot call him. He was a spare, wiry Tennessee Indian with enough colored blood to have been a slave; he had freed himself — sharply, I fancy.

For years he had been the most noted hunter, of grizzly bear especially, in all those mountains; a silent solitary man, who chose to stay with us. He loved money, but money alone could not buy his services. He was a "lucky" (persevering) miner and had lived to himself; but he had a thorough allegiance to Mr. Frémont, and when we went up there, gave to my youngest boy, a child of three years, all the unused tenderness of an embittered nature.

He was a character; known and feared — no man ever "fooled round" Isaac, and as he was absolutely sober and not quarrelsome (though

swift and deadly in retaliation), he made all the guard I needed.

Soon after we left Murray's in the cool gray morning we met a "prairie schooner" with its twelve-in-hand mule team, and we halted for Isaac to ask about the water in the Touolumné, a mountain river with sudden rises that scared me when the current made the open ferry-boat sway dangerously off from the rope.

They warned us we could not rest there the afternoon and night as was our custom. Mrs. Osborne herself had left because of diphtheria there, "bad."

That meant no rest for the horses.

Isaac never talked or exclaimed, but he knew how to act.

As carefully as possible he worked the faithful horses, but the heat and deep hot dust were hard on them. And if they gave out there was not a house or tree or water for stretches of ten and twenty miles.

Isaac was alarmed too for me, and grieved for the little boy, who was as patient and reasonable as he was miserable. I did almost give out, but when you must you not only *must* but you *do*. One of the horses began to suffer; they could not know, poor things, why we hurried past the big barns and the cool shade of the noble oaks at Osborne's. When night fell still a long pull to Stockton, and Prince's back was a limp straight line with hanging head and stumbling feet.

Suddenly Isaac turned to me: "Now, don't you say nothing—I'm going to take you *thar*, to the Ten-mile House. Prince can't go any further."

This Ten-mile House we always gave a wide berth to in our journeyings—you could drive where you pleased on those flat treeless plains, and we were best pleased not to pass through that place; a "wagon-stand" with its corral and barns and smithy on one side of the road, and on the other a tavern, whose owner was a sinner as well as a publican if report was true; and the nearness to Stockton made it a roughish resort.

This was about as bad as the diphtheria at Osborne's; but having recognized what must be done Isaac admitted no weak side-issues.

The moon was up and curious wagoners came forward—incredulous—as they recognized the carriage. A brief explanation from Isaac made them into active helpers about the horses, while Isaac leading, I and the child followed him up the path of the enclosure to the porch of the tavern where sat an enormously large old man who roared at us as we neared—asking who was it? What did we want that time o' night?

Recognizing Isaac, he moderated, but broke out afresh at my name—he wanted no (very blank) black republicans coming into *his* house—he wouldn't have any fine madam there anyhow.

The given-out horse—the child—the sick

woman—"No! *no!* NO!"

"Go round the other side of the porch," directed Isaac, "where you can't hear him. He can't come after you—he can't git about without help—and nobody's going to help him *this time*."

There was a little two-pronged oil-lamp flaring away in the window behind him, and by its light I saw Isaac's thin features, all twitching with passion. But he controlled himself, and said only that he must see what could be done for the horse, and could I just wait on the porch?

"Well, but don't you be long about it! I won't have 'em here!"

"*C'est Croque—mitaine mamman*" (the nursery-French for ogres and terrible creatures). The little man had eyed it all as a show, and until now had not spoken.

I told him we must both keep very still, and we moved off as far as the porch permitted; to be met by a trembling haggard woman with such a *very* young baby, who was listening in fear and begged me with tears to get away.

Another roar:

"See! Here—You! You can set in the parlor—come out o' that fog."

Venturing near enough to thank him, I asked to stay outside. The young locust trees were in bloom, and filling the night air with a dear remembered home fragrance—"Let me stay by the locust trees. They reminded me of home and my father," I said, nearly crying; I was so tired and it was all so unexpected and miserable.

"Where's your home? Who's your father? What's his name?"

I answered: "Saint Louis"—"and Senator Benton."

"WHAT! Senator Benton? Tom Benton?"

And being satisfied of this, with a roar louder than any yet, he cried out for one and another until several men were about him; all was changed now—he could not enough show his good will. His outcry had brought Isaac from the sick horse, and to him and to all he commanded attention to me: "You, Ike, you go round to the kitchen—there's a woman *thar*, a pore-good-for-nothing-sickly-thing with more children 'an she can handle and she's got another—I had to take the lot along with her husband and now he can't cook, he's down with the chills. Have that woman up, Ike, and make her wait on the madam.

"Tom Benton's daughter! Lord! how I did fight for him them Bank times in Mizoury," etc., etc., etc.,—"and there's young chickens and eggs—git the lady a supper."

While to another was given the order for "wine," and lo! bottles of various kinds (for *me!* a water-drinker by training and preference).

He meant it so well that, with the aid of my handkerchief, I managed to empty a glass of an explosive compound he named "champagne"

without risking any of it within my mouth. I do not wonder that the loud cries, the queer surroundings, his big bloated form made the child think him an "ogre;" but he was now intent on hospitality and intermingled his broken recollections of my father, and election work, with sudden vociferations for more attentions to me. He had himself shuffled along in his great chair to the end of the porch where the locust blossoms looked like a snowfall in the moonlight. "Them locusses, I planted 'em to remind me of old Mizoury," and before long he was talking to me almost gently; he thought he had dropsy, and found a sort of comfort when I reminded him of General Jackson's long sufferings and death from the same disease. "That's so! I know that's true! Well, well, what's good enough for Andy Jackson's good enough for me."

He had not heard of my father's death. He could not realize so much will and strength and accumulated power, gone.

"What am I?" he kept saying. "I'm nothin' to nobody. Nobody minds me now I can't git round—they pretend they don't hear me call and I git mad. Well—I *am* glad to have Tom Benton's daughter in my house before I die."

He was in pain though, and had to be carried off, telling me to stay as long as I had a mind to—"jist you take all you want. Rest that horse," etc., etc., etc.

But very, very early that horse was on duty, and we crept into Stockton where a hot bath and a good sleep left no trace of our misadventures. Only to the poor "ogre" as to myself, a memory of the good influences of the locust blossoms.

On the boat I found the *Golden Era*, the literary paper of that coast, and in it a bit of description I felt to be so faithful to the sort of man I had just seen, where the germ of good survived the wrong uses of a life, that it thoroughly interested me. I knew the editor, and, again seeing more

such writing in his paper, asked who his contributor was.

"My compositor, a young man of not twenty-three."

I had to insist this very shy young man should come to see me; but soon he settled into a regular visit on Sunday, his only time of leisure, and for more than a year dined with us that day, bringing his manuscripts; astonished by the effect of some, at times huffed by less-flattering opinion on others, but growing rapidly into larger perceptions as he saw much of various people to whom I made him known. Chief of these was dear Starr King. It was an education in every good to know him.

But a man cannot live on praise as a hummingbird does on honey-dew. I was coming away when the war began, and our youth, "to fortune and to fame unknown," was starting to Oregon to become joint editor of a newspaper, when Mr. Beale came out as Surveyor General. He gave at my asking an appointment with a good salary to the unknown genius, and he gave him also his own valuable friendship; when he was leaving California Captain Rand, who was United States Marshal of the State, repeated the kindness; and on his giving up office a friend of Starr King's who was superintendent of the mint there took up the chain of good will and again a good salary secured leisure and a quiet mind to the young writer.

He wrote me about this time: "If I were to be cast away on a desert island, I should expect a savage to come forward with a three-cornered note from you to tell me that, at your request, I had been appointed governor of the island at a salary of two thousand four hundred dollars."

By this time, however, he was well-known in California. I could not prevail on Mr. James T. Fields to introduce him on this side through the *Atlantic*, but his own "Heathen Chinees" soon after introduced him to the reading world where Bret Harte needs no outside help.

WAYS TO DO THINGS.

BY E. S. L. SHERMAN.

XXXI.

HOW TO MAKE A SACRED CALENDAR.

LAST year when the publishers failed to send us enough of those "Day Unto Day" calendars to go around, we had a "happy thought," and made one for grandma ourselves. We pro-

cured some nice printing paper which we cut into three hundred and sixty-five sheets about four inches long and three inches wide. In the centre of each sheet we outlined a large figure, over an inch in height. These figures we then painted black. We put a bright red line around the date of each family birthday, each wedding anniversary, Independence Day, New Year's Day, Washing-

ton's Birthday, and Christmas. Of course this occupied us several evenings.

With pen and ink we then wrote in the upper left-hand corner of each sheet the number of days past, and in the upper right-hand corner the number of days to come in the year. Just above the central figure we also wrote the name of the month in a large plain hand. Underneath the central figure, we wrote the name of the day in the week. Below that we wrote a verse, or part of a verse of Scripture — something good to live by, or something comforting or hopeful. We had a little old "Dew Drop" book which my great-aunt picked up in the road, when she was a little girl, way off in Vermont, and gave to me long ago when I was a little girl; this supplied us easily with appropriate Bible verses. But with more time it would be

pleasanter to choose personally from the Scriptures. From some old pasteboard boxes in the garret we selected a nice piece, perfectly fair and white on one side, about nine inches long and a little over six inches wide. This we bound with a pretty gilt bordering — no more nor less than a left-over bit of wall-paper border. Then we had a tempting fruit-picture in rich colors, and this we pasted on the pasteboard just above the point where we intended to fasten on the pretty tablets of leaves we had prepared. Then we prepared our tablet by making eylet holes through the sheets, through which we run a ribbon whose ends we passed through eylet holes made in the pasteboard, tying the ribbon at the back. A handsome ribbon passed through eylets at the top of the pasteboard sufficed to suspend it on grandma's dressing-table.

THE TEMPERANCE TEACHINGS OF SCIENCE.

XII.—FURTHER INFLUENCE OF ALCOHOLICS ON THE BRAIN.

BY PROF. A. B. PALMER, M. D., LL. D.

IN the last chapter, some of the effects of the habitual, excessive use of alcoholics were mentioned, especially *delirium tremens*.

Insanity is another morbid condition of the brain caused by chronic alcoholic indulgence. The statistics of all insane asylums bear evidence of this fact. In the list of causes of this most terrible of calamities, intemperance occupies a prominent place; but those who have given most attention to the subject express the opinion that this disease is more likely to attack the offspring of drunkards, than the drunkards themselves. These latter cases are not usually charged, in the statistics, to intemperance, though they are the remote consequences of it.

The first attack of insanity in the drunkard is usually recovered from under asylum treatment and where further indulgence is prevented; but the patient too often returns to his drink when released, and subsequent attacks are very liable to occur, from which the patient is far less likely to recover. Occurring in the children of drunkards, the first attack is more liable to be permanent. Idiocy, blindness, deafness, and other defects of the nervous system are painfully common in the children of the intemperate.

In what is called Chronic Alcoholism, paralysis from brain and nerve impairments is a not infrequent occurrence. It takes different forms as it affects different parts, and usually indicates such an advanced and extreme state of alcoholic poison-

ing as renders recovery very rare. Fits of apoplexy, often speedily fatal in the first paroxysm, and almost inevitably so when repeated, are another result of intemperance; and when partial recovery takes place, brain impairment remains, frequently accompanied by palsy. Epilepsy is another disease of the brain and nervous system sometimes produced by alcoholism.

The term Inebriety, or Dipsomania, is applied to a condition in which the subject of it is supposed to be incapable of self-control, and is given up to periodical or constant drunkenness.

There has been much discussion of the question as to whether this state should be considered a *disease*, or a *vice*. That it is a disease or a morbid state of the nervous system, there can be no reasonable doubt, but it is a disease produced by alcoholic indulgence, and that indulgence, while controllable and in view of its probable effects, must be considered as a vice.

Theologians generally consider drunkenness in all its forms as a vice, and there seems ground for this opinion in the Scriptural declaration, "No drunkard shall inherit the kingdom of Heaven." But in the case of the confirmed dipsomaniac the sin, if sin there be, was committed before disease had rendered the person irresponsible — before the brain became so diseased as to deprive the victim of self-control.

But whether it should be called a disease or a vice, it is the effect of alcohol upon the nervous

system; the tendency to the condition often being hereditary — generally from alcoholic indulgence in parents — but developed into the actual morbid state by the indulgence of the individual.

Whether a disease or a vice, it is very difficult of cure, and if temporarily relieved, either by physical or moral means, it is exceedingly liable to return, and result in moral and physical death.

Space fails, and the object of this work does not require that all the diseases which alcohol is capable of inflicting should be even mentioned, much less dwelt upon. But, after all, it should be understood that by far the most frequent evil effects of alcohol do not consist in the production of special diseases peculiar to itself, but in a general perversion and lowering of vitality which renders one more subject to diseases of various kinds, and causes diseases and accidents to be more fatal. In all reports of the causes of deaths, the different diseases and accidents are named, but the alcoholism which rendered them fatal is not mentioned; and even when the disease and death are caused by the alcoholism alone, the truth and the warning example are sacrificed to what are regarded as the proprieties of the occasion — a sentiment of respect for the dead and the feelings of friends. In public reports alcohol and alcoholism do not receive a tithe of credit or responsibility for the evils they accomplish.

But as the last subject of these articles on the action of alcohol on the brain and nervous system, I shall endeavor to notice some of the effects of its shorter, more moderate use upon the mind and body.

In some of these cases of habitual tipping, as distinguished from drunkenness, only functions or actions are perceptibly changed, while in others the structure of the brain and nerves is more or less profoundly affected.

Often among the first symptoms will be observed a perversion of moral sentiment. There will at least be an indifference to the dangers of drink and a general recklessness of conduct. This is a natural result of the narcotic, benumbing influence of the poison. There are apt to be improvidence, sensuality, an absence of restraint of the lower passions, malfeasance in office, unfaithfulness to trusts, indifference to the feelings and claims of parents, wife and children, and disregard of the advice of friends. There will generally be noticed unsteadiness of the hands, and often of the movements of the lower extremities, inquietude, especially if the doses be not regularly increased, want of refreshing sleep, at first fitful, but often more constant, particularly when the accustomed amount is diminished or withdrawn; and now the general appearance and expression of an habitual drinker appear. The irregular motions can, for a time, be restrained by a decided effort of the will. They are worst in the morning, especially when the sleep has been

broken, but are steadied by food and the usual dram. Headache, buzzing in the ears, irritability of temper, cloudiness before the eyes, and, in more severe cases, flashes of light and various hallucinations may follow. There are uncertainty of purpose, mental instability, though sometimes dogged obstinacy, feelings of dread but without the purpose to avoid evil or danger.

Partial paralysis of the nerves which cause contraction of the bloodvessels of the face, consequent enlargement of these vessels, and redness and eruptions of the face are common. There is foulness of the breath, not so much from the simple smell of the alcohol passing off, as from its vapor changed in character and mingled with effete and decomposing matter from the system; and if a strong odor of tobacco be added to these, the effect upon the senses and feelings of others, especially upon a wife with delicate nerves, I shall not attempt to describe.

All this may happen to a steady drinker who would warmly resent being called a drunkard, and whose friends would feel greatly scandalized by such a charge. He may never have been so much under the influence of liquor as to be deprived of self-control or to become incapable of doing routine business. A temporary abstinence may for the time diminish his capacity or disqualify him for business, and he may readily persuade himself that the indulgence is a good, if not a necessity; thus he floats on into a whirlpool of more degraded drunkenness, or is prematurely arrested by some disease rendered fatal by his condition, or his powers fall early into general decay.

That this is a true account of the average tippler, few will attempt to deny.

But it may be inquired, "Cannot one indulge in the habitual use of moderate quantities of alcohol without all these results?" Certainly this is possible and the possibility has been illustrated in numerous instances. But is any one in health the better for any ever so temperate use of alcoholic liquors? Is he not the worse, in some degree, for such indulgence?

This is the only question which remains, and it is one which must be determined in the light of the scientific facts which have been stated, though imperfectly, in the preceding articles; by the general experience, and by observing the condition of abstainers and those who moderately indulge.

The essential effect of alcohol upon the heart has been ascertained by mechanical instruments of precision, and has been demonstrated to be sedative or depressing, and not stimulating. By other precise means it has been demonstrated that oxidation in the lungs is retarded and not increased by the indigestion of alcohol in whatever quantity. It is also demonstrated by the thermometer that the production of heat in the body is diminished

rather than increased, though by its narcotic effect the sense of coldness may be obtruded or overcome. We determine also by chemical tests, that alcohol neutralizes the gastric juice when present in any considerable quantity and diminishes its action in the digestion of food. It has also been determined by the lifting of weights before and after alcohol has been taken, that it diminishes and does not increase muscular power; but we have no such positive mechanical and chemical tests to determine its action upon thought and feeling, upon reason and impulse, upon the intellectual and moral operations of the brain. Of its effects in this respect we must judge from our experience and our observations upon functional manifestations, which are not susceptible of the same precise measurements; and here conclusions are less capable of physical, chemical, and mathematical demonstration. But these experiences and observations are sufficient to prove to those who carefully observe and correctly infer, that alcohol as a

beverage, however guarded the indulgence, is useless, injurious and dangerous; that its apparent beneficial effects are deceptive while its injurious effects are positive. Nothing outside of physics, chemistry, and mathematics, it appears to me, is more certain, and nothing in its bearing upon our individual, domestic, social and national life, is more important. If the views which have been expressed are correct, they should be disseminated, emphasized, and impressed, especially among and upon the young on whom the conditions of the future depend. The influence of physical, chemical and psychical laws upon intellectual, moral and social states is with every year becoming better understood and more fully appreciated; and if this effort, the work of some occasional hours snatched from other engrossing labors and cares, shall have the effect to increase the knowledge of such conditions and laws, and improve the practice in relation to them, its object will have been accomplished, and its author gratified.

THE MAKING OF PICTURES.

BY SARAH W. WHITMAN.

XII.

EXHIBITIONS AND SALES.

IN the making of a picture, the artist thinks of nothing but the fulfilment of an idea which is in his mind, and which is to be brought out in tangible form. He dreams, and strives to make his dream plain; is absorbed in this struggle, and, if he be a true artist, thinks only of his work, of the idea which he has set himself to express. It is when the picture is finished, that he realizes that in a certain sense every artist paints his picture for the world, for the people who are about him, and that he needs an opportunity to put it where it may be seen; in short that the work which he has done will fulfil itself when it is felt and understood and loved by others. This truth may be stated as a general principle; for from our point of view at least, we may say that all noble work well done has for its issue the good and the happiness of other people. For however much pains or study may be bestowed for the pure love of knowledge, the gain which comes from it is public property and promotes public welfare. And as this is true generally, so is it specially true of all Art-work — for it fosters an instinct which is well-nigh universal — an instinct to which the artist ministers, from which he receives an acknowledgment that

sets a seal upon the success or failure of his labor. Pictures which nobody wants nor cares for (sooner or later) are proved to be out of the broad highway of acknowledged human need; though they may have some intrinsic worth for special students or lovers of Art, as witnessing to individual ideas or methods. But in the main, public criticism decides the fate of Art-work with a close approach to justice.

You will remember that I am speaking broadly; paying no heed to the exceptions to this rule; saying nothing of local ignorance, nothing of perverted and passing fancies among uncultivated communities, nothing of that dangerous half-knowledge among our own people which enables them to know often when a thing is good, but does not warn them against what is bad; of all this I do not here propose to speak — I only dwell with emphasis upon the necessity of a public to the artist; upon the need that exists for his coming into quick and vital relation with the thoughts and desires and æsthetic impulses which lie around him, and out of which is shaped a criticism of the work he does. From this criticism the artist learns two things; first, of what worth his ideas are to his contemporaries, the men and women of his generation; and secondly, how much or how little his method of expressing these ideas is understood. We see then how essential it is that there should be easy

and practical ways in which the painters and the public should be brought together, and there are indeed many opportunities given for this intercourse. In the first place artists often receive visitors at their studios; as the studio comprises some of the qualities of both a workshop and a home, it is there that one is at home with his ideas and his aspirations, and there accordingly that one welcomes friends and critics. To the studios go also many strangers who may wish to buy pictures, and who find it more interesting and more direct to treat with the artist himself, rather than with those who deal in pictures. Here may be seen work in all its stages; studies and sketches, hints and memory notes, together with those numberless suggestions which go to make up an artist's working capital; and which never fail to have a special interest for the public eye. There can be no doubt but that this intercourse is of great value both for artists and patrons alike; the latter finding the benefit of coming into nearer and more intelligent relation with the methods of Art-work; while the former gains in coming into closer relation with the world; a world which often seems strange and far away to those who live within studio walls. Perhaps there are some disadvantages; some of them may lie in what often happens in the ordering of a picture repeated. This practice has prevailed from the Greek times till now; yet it must be regarded as unfortunate. A really beautiful work of Art cannot be repeated; the nature of things prevents this; and it is surely better to trust the artist to work from a fresh motive, than to demand from him so stale a thing as to try and repeat an old one. So much for seeing pictures in studios; but there are many other means of seeing them, beginning with those shops where dealers make a special object of exhibiting modern work. Here everything is done to make it easy for patrons and amateurs to become familiar with contemporary art. There is generally a special room or gallery in which pictures are constantly open to view; there are public and private sales; and nothing is simpler than to keep one's self informed of what is done in these directions. If an artist desires to have a special exhibition, he can make very good terms with the dealers; arranging, perhaps, to take the gallery for a certain length of time, and then having not only a good place for showing his works, but careful attention paid to all necessary business matters, in consideration of a percentage on sales. This commission is from ten to fifteen per cent., and it must be said that there is especial courtesy and consideration shown to artists by picture-dealers in this country. Very often poor students have received their first encouragement in the confidence shown them in their difficult years of artistic endeavor; and sometimes an artist has found means to study abroad by virtue of a generous compact made

with him by a picture-dealer; wherein the student agrees that whatever work he does shall be at the disposal of the dealer; while the latter furnishes him with the means of comfortable subsistence, without responsibility, save as to his Art.

It will be seen that whatever is exhibited in the shop becomes in a sense the property of the public, and so will be spoken and written of, thus establishing a certain amount of criticism, and if this be good criticism, there is just so much advantage to the artist. But a yet fuller chance for this comes in connection with those exhibitions which are held in the galleries of art museums and clubs; a form of exposition now almost universally practised. In all our large cities spring and fall exhibitions occur under the patronage of those who are fitted to conduct such matters, and by methods which involve the strictest impartiality. Almost always affairs of this sort are in the hands of a committee of management, which asks artists, either by a special or general invitation, to contribute one or more works. The pictures are sent at a certain date, and are in most cases submitted to a jury, who pass upon their merits, and reject or accept them according to an agreed standard of excellence. The pictures which pass this scrutiny are duly catalogued, and hung according to the discretion of this jury. Among the advantages to an artist in the public exhibition of his work must be reckoned the chance to see it himself in this new perspective which makes it almost possible to look at it and judge it as if it were the work of another. Freed from the familiar surroundings, one sees the work of one's head and hands more as it really is; less as one fancied or hoped it might be, and so, often learns a lesson of painful value.

After this criticism by one's self, comes that of others; often very futile to be sure, because in this country there is so much opinion and so little real knowledge in matters of Art. But even this is not without its value. At these exhibitions a chance is given to make sales; and much practical business is done in this way. While on the other hand exhibitions involve a good deal of cost, and — especially to non-resident artists, some risk. A picture must be well framed, for its own sake, and because the rules of galleries demand it; and this, together with boxing and carriage fees, and the injury that often comes from handling and so on, make a bill which the poor artist often finds it hard indeed to pay, especially if his picture has been "skied" on the walls! This expense and danger to one's pictures is increased by the fact that no arrangement has yet been made for the transfer of stated exhibitions as a whole from city to city. If this were done, much would be saved in every way; of time, money and pains; while the public would have a far better chance of seeing the best

of each artist's work. Properly managed these exhibitions might be made to do great service, furnishing in various cities a gallery of pictures which might be judged by higher standards than is now possible. An effort to bring about some such plan as this has been made lately in New York; and indeed so much interest attaches to the question in all our communities that we are sure soon to see improvement.

Of late also, the offering of prizes for pictures has been much practised; either in the shape of buying such works as are selected by a jury (after the manner of the French Government), or else in giving sums of money or medals for what is judged to be the best work. There are certain disadvantages in the prize system, as is often said; yet in the main it has been found to provide a worthy stimulus having often the effect of making

the artist feel a sympathetic regard and appreciation among those who know the truths of Art, and are willing to testify to good work. Soon it may be hoped that prizes will be offered in the shape of scholarships also, which will give leave to pursue foreign study and travel, as well as to gain in Europe the more indirect advantages of which all students stand in need.

With this description of the way in which pictures are finally brought to public notice, our little series of talks must end. Yet I hope that the young readers of the *WIDE AWAKE* will not fail to go on with more careful and continuous study of the making of pictures; finding that delight and refreshment which comes from understanding the language in which Art speaks. There are but a few great voices in the world; but among these mighty ones is the Voice of Beauty.

ENTERTAINMENTS IN CHEMISTRY.

BY HARRY W. TYLER.

IX.

AMMONIA.

AMMONIA suggests two ideas: a pungent odor, and the colorless liquid from which usually this odor proceeds. But it is really an invisible gas, like hydrogen or carbonic acid.

Procure at the druggist's a little ammonium chloride — "sal ammoniac" — some lime, or a stick of caustic potash. The last should be handled no more than necessary, and kept in a tight bottle. Mix powdered sal ammoniac with an equal quantity of lime, or with fragments of the potash, place in a test-tube, add a little water, then heat cautiously. Or you may simply place the mixture in a small hot bottle, and add a little boiling water.

The action is not violent, nor is there apparent change in the mixture. But you observe a slight bubbling, and in reality the gas called ammonia, to which is due the strong and familiar odor, is now escaping at the mouth. The amount of gas thus set free depends upon the amount of the mixture and, to a certain extent, upon the degree of heat employed.

Sufficient for the present that ammonia gas is thus formed; its properties we can study more easily in another way. Pour a little strong ammonia water into a test-tube or small bottle; there is a marked odor at the mouth. Warm gently by a spirit-lamp or by dipping in hot water; the odor increases. Pour two other portions into saucers,

and leave uncovered for some time — one in a warm place. In all these cases, the immediate effect to be noted is the escape of the gas as shown by the odor. That something is really lost, we infer from the final result — the liquid becomes almost odorless. The more heat we apply, the faster the change, and if the process is complete nothing but water remains.

Commercial ammonia, or ammonia water, is composed, then, of water and of something which must be a gas, since it is so easily driven out without re-condensing into a steam-cloud or liquid.

We know that various solid substances are soluble in water, and that certain liquids, as alcohol, have the same property. But we can never drive off a true solid — and not often the whole of a liquid — by boiling. With gases this rule is reversed. Speaking roughly, a gas is a substance whose particles are, at ordinary temperatures, so far apart, and in such animated motion, that it tends to extend or diffuse itself indefinitely, having of itself neither fixed limits like a solid, nor a single free surface like a pool of water. In case of ammonia, the nimble, restless molecules mingle easily and in great numbers with the more stable molecules of water. The molecules of gas sacrifice most of their former liberty, but not all. Hence from the free surface of the solution, molecules of the gas constantly escape, the rapidity depending upon the temperature; even a little heat so increases the activity of the molecules that those of the gas break away more easily from the

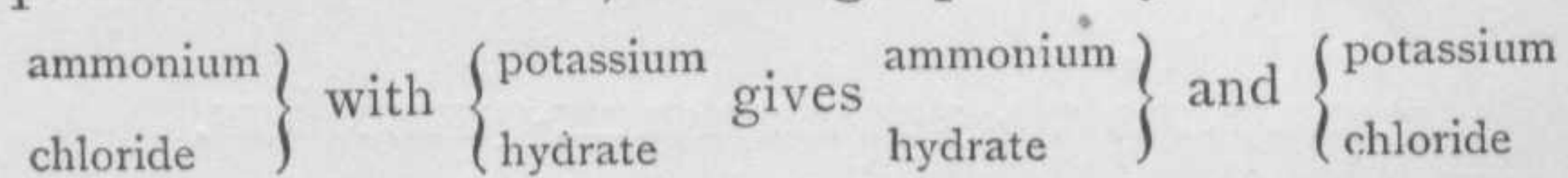
liquid confining them. Thus, near an uncovered ammonia solution, we observe the odor of the gas, and we now know that heating will soon drive away the gas with its odor.

Ammonia gas is remarkable for its solubility in water. Fit a straight glass tube about six inches long by a cork into a test-tube. Pour into the test-tube some strong ammonia water, and boil cautiously, over a spirit-lamp, holding an inverted test-tube to catch the escaping gas; for ammonia is so much lighter than air that it fills the inverted test-tube from the top, driving the air out at the bottom. You may, if necessary, substitute a dipper for the lower test-tube, a small tumbler for the upper, and a funnel for the tube and cork. Now raise the upper test-tube till you can close the mouth with your thumb, then quickly plunge the mouth in a vessel of water, keeping the test-tube always inverted. Such is the readiness with which water and ammonia mingle that the former rises nearly to fill the tube. A gallon of water will dissolve several hundred gallons of gas.

Though containing hydrogen, it is not inflammable, as we may discover by trying to ignite the escaping gas of the last experiment. Ammonia is a chemical compound of nitrogen and hydrogen — owing its lightness to the latter; and its chemical relations are interesting. Its deportment towards copper we have studied; toward another metal it may be briefly noticed. Pour a few drops of ferric chloride solution — “sesqui-chloride of iron” — into a test-tube or small tumbler; add water until the color is scarcely visible, then a little ammonia water. The color seems deepened at first; but soon we have brown, solid flakes, floating in a liquid nearly colorless. These flakes contain all the iron of the solution. An equally interesting result may be obtained with ammonia water and a solution of alum; now the flaky *precipitate* is

white, and contains the metal aluminum instead of iron.

The theoretical study of ammonia and its compounds is not very simple. When we dissolve ammonia gas in water, there is probably a weak chemical union of one molecule of ammonia and one of water, forming a new molecule of *ammonium hydrate*, and the latter compound is dissolved in the extra water present. A molecule of water is composed of two atoms of hydrogen and one of oxygen, and a *hydrate* is a compound formed by substituting for one of these hydrogen atoms an atom usually of some metal, as sodium or iron. Now if we compare ammonium hydrate with other hydrates — as caustic potash or slaked lime — we find that corresponding to the metallic base of these latter, is a group of hydrogen and nitrogen atoms, which we call *ammonium*. This group exists only in combination with other groups or atoms, and just as we have chloride of sodium, so we have the ammonium chloride of our first experiment. Since ammonium compounds are easily decomposed, and since ammonium contains but a single atom of hydrogen more than a molecule of ammonia, the preparation of the latter is not difficult. When ammonium chloride is heated with hydrate of potassium — “caustic potash” — there is an interchange, forming ammonium hydrate and potassium chloride; thus graphically:



If the heat be sufficient the new hydrate gives up its ammonia gas. On the other hand, when we add ammonium hydrate to ferric (iron) chloride solution, the interchange forms ferric hydrate and ammonium chloride. Finally by boiling ammonium hydrate, as we have seen, we set free its ammonia.

SEARCH-QUESTIONS IN AMERICAN LITERATURE.

BY OSCAR FAY ADAMS.

XII.

MISCELLANEOUS QUESTIONS.

221. Name the authors of these books: *Dr. Johns*, *Cudjo's Cave*, *Hitherto*, *The Queen of Sheba*.

222. When did the first American Prayer-book appear?

223. What author translated Homer after he was seventy?

224. Name the authors of these dramas: “*Francesca di Rimini*,” “*Esmeralda*,” “*The two Men of Sandy Bar*.”

225. Who wrote “*The Echo Club*,” and what is it?

226. What poem begins, “He was a brick”?

227. What book begins thus — “I was just going to say, when I was interrupted”?

228. What author is compared to Pope on account of the polish and brilliancy of his lines?

229. Name the authors of these poems: "The Wagoner of the Alleghanies," "Spring in New England," "Dorothy Q.," "Each and All," "The Battle Field" (a poem of eleven four-lined stanzas).

230. Name five or more authors each famous for a single poem.

231. Name any novelist famous for a single novel.

232. Are there any instances of two brothers achieving notice as poets?

233. Mention any instances of two sisters becoming noted as poets.

234. What two historians of note bear the same surname?

235. Mention any instance where mother and son are poets.

236. Is "The Foe in the Household" a poem, novel or drama, and by whom was it written?

237. Mention the names of five poets of any note who died before 1825.

238. Give the names of three theologians of eminence who died before 1805.

239. What kind of literature was most widely read in America prior to 1800?

240. What English writer once sneeringly said, "Who reads an American book?" Was there any foundation for the sneer?

1854; Wm. Graham Sumner, 1840; Francis Amasa Walker, 1840; Amasa Walker, 1799-1875; Robert James Walker, 1801-69.

185. Upon musical topics.

186. For his famous journal. See *Journal of John Woolman*, edited by J. G. Whittier.

187. The theory that the plays of Shakespeare were written by Francis Bacon.

188. Dramatic. See *The Sons of Godwin*, and *At the Court of King Edwin*.

189. Novel writing. See *His Majesty Myself*, *The New Timothy*, etc.

190. *Ten Nights in a Bar-Room*.

191. Historical. See *The Native Races of the Pacific States*, etc.

192. Metaphysical. See *Laws of Discursive Thought, Christianity and Positivism*, etc.

193. Moral tales for young people.

194. *The Victorian Poets* is by Edmund Clarence Stedman and is a careful study of English poetry from 1835 to 1875; mainly as seen in the work of Landor, Hood, Matthew Arnold, Procter, the Brownings, Buchanan, Rossetti, Wm. Morris, Swinburne and Tennyson.

195. John Cleves Symmes, 1788-1829. See *Harper's Magazine*, Oct. 1882.

196. Hiram Corson, 1828; Josiah Willard Gibbs, 1790-1861; Samuel Stedman Haldeman, 1812-1880; Horatio Hale, 1817; James Albert Harrison, 1848; Francis Andrew March, 1825; George Perkins Marsh, 1801-1882; Wm. Dwight Whitney, 1827.

197. Rev. James Freeman Clarke, Unitarian; Rev. Newman Smyth, Congregationalist; Rev. Morgan Dix, Episcopal; Rev. Orestes Augustus Brownson, Roman Catholic; Rev. Samuel Irenæus Prime, Presbyterian.

198. As essays and literary criticisms.

199. Albion Winegar Tourgée, 1838.

200. Mrs. Martha J. Lamb is the editor of *The Magazine of American History*, and is best known by her *History of the City of New York*, a work of great value.

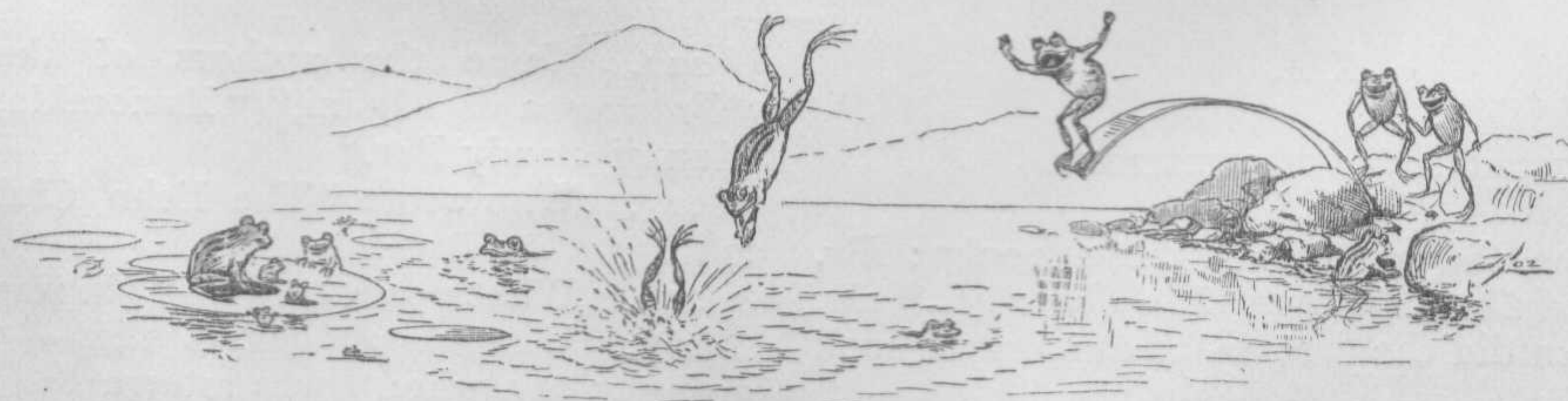
ANSWERS TO JULY SEARCH-QUESTIONS.

181. Historical. See *Palfrey's History of New England*.

182. Upon topics relating to art. See *The House Beautiful*, by Clarence Cook, *Italian Sculptors*, by Charles C. Perkins, and *Art Thoughts*, by James Jackson Jarves.

183. Horace Howard Furness, 1833; Henry Norman Hudson, 1814; Wm. James Rolfe, 1827; Richard Grant White, 1822-85.

184. Henry Charles Carey, 1793-1879; Matthew Carey, 1760-1839; Richard Theodore Ely,



SPORT.

C. Y. F. R. U.

REV. J. H. VINCENT, D. D., AND REV. J. L. HURLBUT, D. D., SUPERINTENDENTS.

MISS K. F. KIMBALL, PLAINFIELD, N. J., SECRETARY.

[This department, while not less interesting to the general reader, is especially set apart for the CHAUTAUQUA YOUNG FOLKS' READING UNION, the young people's branch of the Chautauqua movement for popular home education. It supplies a course of reading for young people which is intended to give them the most valuable knowledge in the most interesting manner. The Required Readings are issued simultaneously in WIDE AWAKE and the CHAUTAUQUA YOUNG FOLKS' JOURNAL; a few added books form the Supplementary Readings. The Union is under the direction of REV. J. H. VINCENT, D. D., and REV. J. L. HURLBUT, D. D., as Superintendents, in connection with the Editors of the magazines mentioned above. Any person, young or old, may become a member of the Union by sending his name and *ten cents* in postage stamps to the Secretary, Miss KATE F. KIMBALL, Plainfield, N. J., to whom inquiries for further information may be addressed.]

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REQUIRED READINGS (SERIAL).

I. PLEASANT AUTHORS FOR YOUNG FOLKS (*American Series*). By Amanda B. Harris, author of *Pleasant Authors* (*English Series*). 12 papers. With portraits. Young people and their counselors, who have accepted Miss Harris as a wise and discriminating guide to the most entertaining English literature, will welcome this series relating to what is most pleasurable in standard American literature.

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WIDE AWAKE, the JOURNAL and the books are supplied by D. LOTHROP & Co., 32 Franklin St., Boston, and by the CHAUTAUQUA PRESS, 117 Franklin St., Boston, and book sellers everywhere.

Special! A pretty illustrated eight-page circular containing full particulars about the Fifth Annual Course, and much matter of interest to members of the C. Y. F. R. U., has been prepared for distribution. Members of the Union are requested to distribute among their friends this eight-page circular, which will be mailed free to them in such numbers as they can use to advantage.

Now is the right time to form Local Circles for social reading, discussion and experiment. All members taking the course for the fifth year will forward their names, with the annual fee of ten cents for postage, etc., to Miss Kate F. Kimball, Recording Sec., Plainfield, N. J.

Answers to Search-Questions should be addressed to Editors of WIDE AWAKE, 32 Franklin Street, Boston, Mass., with the words, "Search-Questions," in corner of envelope.

For titles of books to be given as prizes for correct answers see the January number.

In reply to many inquiries: *We will receive answers to Search-Questions up to the date of the appearance of the printed answers, and will publish the names of senders, and allow prizes for correct complete lists.*

Complete lists of correct answers to the July Search-Questions have been received as follows: Harry M. Wheelock, Emily C. Hall, Alice M. Morgan, C. Y. F. R. U. of Albion, Mich., H. Willis Emerson, Ella M. Booth, K. Ethlyn Bushnell, May Sommers, Chaut. Gleaners of Lynn, Mass. (Dana H. Sanborn, Sec.), Ethel A. Rockwood, G. E. Bushnell, Nellie Colfax Smith, Winona Parker, "You and I" Club of Providence, R. I. (Bessie W. Olney, Sec.), Edith L. Johnson, H. W. Bray, Dora Barstow, Edward S. Smith, Adele Grow, Charles G. Norton, Annette M. Davis, L. M. Alexander, Ethel May Adams, Clio C. Y. F. R. U. of Norwich, Conn. (W. S. Congdon, Sec.), Mary L. Clark, F. B. Frye, Nellie Ward, Henry J. Howland, H. S. Blackman, Star C. Y. F. R. U. of Providence, R. I. (Nellie F. Alexander, Sec.)

Partial lists, and lists not wholly correct, as follows: George M. Kelley, Sadie T. Lyman, S. Eddie Whittaker, Lakeside C. Y. F. R. U., of Westfield, Mass. (Alice M. Holt, Sec.), Frances Sterrett.

Additional complete lists of answers to the June Search-Questions have been received as follows: M. A. Lanman, Effie C. Verney, H. S. Blackman, Clio C. Y. F. R. U. of Norwich, Conn. (W. S. Congdon, Sec.), Hurlbut C. Y. F. R. U. of Framingham, Mass. (F. B. Daniels, Sec.), Star C. Y. F. R. U. of Albion, Mich., Mabel Suez Hart, Chaut. Gleaners of Lynn, Mass. (Dana A. Sanborn, Sec.), M. Adelaide Love, Nellie Colfax Smith, Emily C. Hall, Star C. Y. F. R. U. of Providence, R. I. (Nellie F. Alexander, Sec.), Ella M. Booth, Charles G. Norton, S. E. Whittaker, Frank B. Frye, George E. Metcalf, Ethel May Adams, K. Ethlyn Bushnell, May L. Clare, Wm. C. Thompson, George E. Bushnell, Jessie E. Lane, Emma U. Metcalf, Alice May Morgan, Sarah L. Galloupe.

Additional partial lists of answers to June Search-Questions and lists not wholly correct have been received as follows: Kate Woodward, Alice Woodward, Justine Ausman, Helpers Club C. Y. F. R. U. of Bridgewater, Mass. (Julia M. Leonard, Sec.), New Leeds C. Y. F. R. U. (Mary H. Settle, Sec.), Frances Sterrett, H. Willis Emerson, Winifred Parker, Harlan C. Pearson, Harriet W. Bray, Lakeside C. Y. F. R. U. of Westfield, N. Y. (Alice M. Holt, Sec.), Edith L. Johnson, Willis Davis, Annette M. Davis, Mary F. Duren, Ethel A. Rockwood, Mary J. Drew, C. Y. F. R. U. of Monona, Ia. (Leona White, Sec.), Addie L. Goodnow, Bessie Montgomery, J. McK. Tilgham, Mary E. Bidwell, Bertha Hampstead, C. Y. F. R. U. of Lebanon, O. (Una Mull, Sec.), Maude and Grace Wyman, Frank Field, May F. Camp, C. Y. F. R. U. of Nora, Ills. (J. S. Hubbard, Sec.)

THE New England Assembly, at South Framingham, Mass., was bigger and better than ever, this season. There were concerts and lectures and classes, not to speak of bonfires and illuminations and "boat-ridings," and gathering of pond-lilies. The young people were provided for more fully than ever before. A Little People's Class was held for the tots who were too small to write examination papers; a Children's Class for the next grade, from eight to thirteen; and an Intermediate Class for the young people from fourteen to seventeen years old. In all these classes interesting and valuable lessons were taught in Bible knowledge, and the two higher classes passed written examinations which would have done credit to many older people. We wish that our readers might examine the sixty-three questions on the Life of Christ on which nearly fifty Intermediates passed, and eight gave absolutely perfect answers. We would just like to see how many ministers would answer them as correctly! Each class wore a distinctive badge, the gift of the Assembly, so that the woods were variegated with the many colors.

The C. Y. F. R. U. was not forgotten. The Headquarters were handsomely furnished, not only with pictures and books, but with crowds of bright-faced boys and girls filling it every day, of whom many wore the cardinal-colored badge of the C. Y. F. R. U. One of the days was especially devoted to the children. In the morning a lecture, entitled "A Talk to the Boys," was given by Mr. Robert J. Burdette, editor of the *Burlington Hawkeye*. We wish that all could have listened to that hour's address replete with wisdom and adorned with wit.

In the afternoon all the young folks assembled for a procession. First came the C. Y. F. R. U. a hundred strong; then the "Look Up Legion"; then the several classes of Little People, Children, and Intermediates. Altogether, about three hundred young people were in the line, and marched around the grounds, amid clouds of waving handkerchiefs from the tents as they passed. Seats had been reserved for the procession in the Auditorium, where C. Y. F. R. U. songs were sung, the band leading the voices. Addresses were made by Dr. Vincent, Dr. Hurlbut, and Rev. A. E. Dunning. All the speeches were short, and all were enjoyed by the audience.

In the evening came the Children's Bon-fire, after the lecture. It was not in the original programme of the Assembly, but had been asked for by the boys, who volunteered to prepare the pyre, and did their work well. At half past nine P. M. the procession was re-formed, and a march took place to the time-honored place of all camp-fires at the Assembly; the pile was lit, a circle was formed around it, some more speeches were made, songs were sung, and the day closed to general satisfaction.

We cannot stop to tell of the daily meetings for the young folks; of the voyages on the river, and the walks in the woods; of the lilies that were gathered, and the lawn-tennis and croquet. Those who were at the New England Assembly will long remember that delightful fortnight in the forest, and will look forward with hope for another season next year.

THE WIDE AWAKE POST-OFFICE.

JOPLIN, Mo.

DEAR WIDE AWAKE:

I have taken you for five years, and this is my first letter to you. I think the stories this year are better than ever. I think "Down the Ravine" is elegant, and also "The Bubbling Teapot." I would like to exchange a few Indian curiosities for home or foreign curiosities. I hope my letter will be put in print, for I would like to surprise my grandma who lives in Cambridgeport.

FRANK H. CLARK.

WESTCHESTER COUNTY, N. Y.

DEAR WIDE AWAKE:

I have intended to write you a letter for a long time. I have taken you, dainty little magazine, for nearly three years. My mistress thinks "Anna Maria's Housekeeping" is just splendid. I am a colored girl. I am trying to learn how to cook. Misses says I am a stupid. I would gladly receive any receipts from the readers of WIDE AWAKE. Please print this, as I want to surprise my mistress.

ELNORA JONE.

HARRISONVILLE, Mo.

DEAR WIDE AWAKE:

We have taken you three years and think you are the best magazine published for young people. We are very much interested in the articles by Mrs. Frémont, more, perhaps, because she was *ours* — from our own State. My papa says the first vote he ever cast was for General Frémont.

My sister Daisy and I have been trying to answer the "Search-Questions." We have tried nearly every set but have failed in one or two questions, every time. I would like to say to M. B. G. (in May WIDE AWAKE) that I think a very good English History game is the "Chautauqua Game of English History." It may be obtained from Fairbanks, Palmer & Co., 46 Madison St., Chicago.

I would like very much to correspond with Bessie Hooker.

FAYE TERRELL.

Box 876, GOUVERNEUR, N. Y.

DEAR WIDE AWAKE:

My sister younger than I takes you. I read it and like it better than any magazine we ever have taken. The two girls in the March number asked all who tried the recipe for chocolate candy they gave to report success. I tried it and found it to be very nice. The only chocolate candy I ever tried and had luck with. All who tasted it pronounced it splendid. I love to cook and do most all of the baking.

I would like to correspond with those two girls. My address is

KATHLEEN MCCARTY.

MONTREAL, Ca.

DEAR WIDE AWAKE:

I have taken great interest in the reading of this magazine and am delighted with the good and useful matter contained in it. I have never written before but have always intended doing so and I trust my letter will not be doomed for the waste-paper basket, so I will not make it longer than I can help.

I dare say a great many readers belong to the C. Y. F. R. U. as I do myself, and have been busy studying in it. Now I have been thinking that perhaps some of my friends would possibly like to start a Wide Awake Temperance Union, and that we might persuade Mr. Editor (or any other gentlemen willing to give a little spare time to the subject), to offer us a little help and a few hints as to the starting of the Union and then perhaps some of us would feel disposed to carry it on in somewhat the same manner as the C. Y. F. R. U. or some other Young Folks' Union, so that it would be a benefit and a help to those joining it.

I will leave you to ponder over it and will be very glad to receive letters and to correspond with any of your readers who are likely to take an interest in such a society and were it once started I think it would be a great success. With best wishes for the prosperity of this beautiful Magazine.

Age fifteen years.

ARTHUR HARRIS.

Our post-office young folks are invited to correspond with Arthur about this good idea; and when Arthur has fifty correspondents who will unite in forming a "Wide Awake Temperance Union," he is invited to communicate with the editors of WIDE AWAKE, and the Postmistress promises he shall then receive advice and hearty help.

Rectory of the Good Shepherd, BINGHAMTON, N. Y.

DEAR WIDE AWAKE:

I was very much pleased with the premiums you sent me. I got *Cats' Arabian Nights* last week and *Cookery for Beginners* yesterday. I think they are both ever so nice, and for only seventy-five cents and, of course, some work. I do a good deal in the cooking line, such as jelly cake, getting up meals, etc. Now that I have a cook-book of my own, I don't have to ask anybody for receipts. I have not tried to make bread yet. I like the premiums so much I shall try to get others. We live to the left of the Susquehanna river. It is very pleasant here. Although it is cooler in winter than it is over town, yet it is cooler in summer, also, which is very nice, as we have some pretty hot weather in July and August. There are five of us children and we have fine times playing together. George, my eldest brother, plays base-ball a good deal as most boys do. I have two other brothers. Papa

reads *Cats' Arabian Nights* to us and we are very much interested in it. Here is a poem I wrote about "My Auntie's Cat." I don't know whether you will think it good enough to publish. I am only twelve years old.

MY AUNTIE'S CAT.

My auntie has a pussy cat,
Her skin is mottled gray;
My auntie loves this kitty,
And couldn't give her away.

She will feed her at the table
Which is naughty she does know,
But she really cannot help it,
For you know she loves her so.

She will go up stairs with her,
And will go with her to bed;
She gives her a nice cushion,
On which to lay her head.

She is very neat and little,
She keeps her coat like silk;
And thrice a day aunt gives to her
A nice fresh bowl of milk.

I hope this little pussy cat
May live many another year,
But now I nothing more can write,
So good bye, my pussy dear.

CHARLOTTE W. BISHOP.

CORPUS CHRISTI, Texas.

DEAR WIDE AWAKE:

I have written to you three times, but not having the correct address, my letters were not printed. I think you are the best magazine published.

Of your continued stories, I like, "Rocky Fork," "Their Club and Ours," and "The Silver City;" the best of the short stories, my favorites are Mrs. Frémont's four true Virginia stories and "Perita Jane."

I enjoy reading very much. I have a great many pets, Guinea pigs—the names of which are Brownie, Snyder, Sukey, Black Foot, Don Quixote and Sancho Panza, and one has no name; we had a great many more but sold them; I have two ground squirrels (found only in Texas and Mexico), a bull dog, a Scotch terrier, and a cat named Thomaso—he weighs thirteen pounds.

I would like to correspond with Mary Allyn, if she is willing, as I am interested in fancy work. I am fourteen years old. Can any one tell me how to do ribbon work? I would like to correspond with Pansy if she will write first. I would give you a description of Corpus and its inhabitants, but I fear my letter is too long.

MINNIE GORDON.

Minnie is invited to describe her ground squirrels for the other lovers of curious pets.

PALMYRA, Neb.

DEAR WIDE AWAKE

I am not a subscriber, but I feel as if I am one of the WIDE AWAKE girls, as a nice little cousin living in Connecticut sends you to me and my sister. I am very fond of reading, especially such interesting solid reading as you contain. I should like to become acquainted with some of the WIDE AWAKE girls. I tried Winifred Coner's recipe for cake, and found it very good. She wrote of having been to Long Island Sound. I have been on it too, and when these Nebraska hot winds come, I wish I were there again. I am very fond of music, and fancy work. I am fifteen years old. I wish some California girl would send me some seeds of the duck plant.

JENNIE E. NICHOLS.

ADDISON, N. Y.

DEAR WIDE AWAKE:

I want to tell you about a worm, or a butterfly, or something that got a joke on my mamma. A stocking was left out on the line one day and one night. Then mamma found something in it and thought I had been putting leaves in it. She took them out—and how she screamed! for she thought it was a big green worm; but it was only a roll made of neat little pieces of apple leaves, rolled one over the other, and folded over the ends. We unrolled and unrolled until we came to something soft and yellowish. It was put up in sections, like cells of honey fastened end-to-end and rolled in a long roll. Now what was it? what made it? and what would it have made? We are keeping part of it to see if it will hatch out. Will you please tell me of a book that will help me to find out what the insects are, and how to keep them alive? I have a pretty little bug, gold-and-green and sun-color, with four jaws and high shoulders. I had a beetle and he ate a round race-course in the table cover. I found a very pretty green beetle in a pail of water, but he died. A spider and a hornet had a great fight, but the hornet stung the spider and got away. I am seven years old.

ORDO ESTEE.

Who of our young naturalists will advise this little seven-year-old observer what books to buy and read?

CHURCHILL, Kansas.

DEAR WIDE AWAKE:

Nellie R. Osborn wrote to ask how to transfer her pictures Mamma says, "Wet the gilt side of them and stick them wherever you want to. Now take a damp cloth and dampen the upper paper; then take a penknife and start it and peel it off very carefully. If it does not go right at first do not be discouraged."

MARY E. MORTON.